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FM 19-25

DEPARTMENT OF THE ARMY FIELD MANUAL

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MILITARY POLICE TRAFFIC CONTROL



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DEPARTMENT OF THE ARMY • JUNE 1950

FIELD MANUAL

MILITARY POLICE TRAFFIC CONTROL

CHANGES } DEPARTMENT OF THE ARMY
No. 1 } WASHINGTON 25, D. C., 22 April 1952

FM 19-25, 1 June 1950, is changed as follows:

The term "arrest," wherever used in this manual, when referring to the authority of persons performing military police or guard duties in taking a person into custody, is changed to read "apprehend" or "apprehension" as the case may indicate.

[AG 010.8 (7 Feb 52)]

BY ORDER OF THE SECRETARY OF THE ARMY:

OFFICIAL:

WM. E. BERGIN
Major General, USA
The Adjutant General

J. LAWTON COLLINS

Chief of Staff,
United States Army

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**DEPARTMENT OF THE ARMY FIELD MANUAL
FM 19-25**

This manual supersedes paragraph 174; chapter 5; and appendixes II, VI, VII, and VIII, FM 19-5, 14 June 1944

**MILITARY POLICE
TRAFFIC CONTROL**



DEPARTMENT OF THE ARMY

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CHAPTER 1

GENERAL

- 1. PURPOSE.** **a.** The purpose of this manual is to furnish a guide for personnel assigned the military police mission of controlling traffic.
b. In combat operations, a numerically superior foe often may be outmaneuvered and defeated by a highly mobile opponent able to concentrate superior forces swiftly at a decisive point. It is only by careful traffic planning, control, and direction that the inherent mobility of modern vehicles is exploited to the utmost. As military police are the means by which a commander exercises control of traffic, every military policeman must have an understanding of the principles of traffic planning and must be proficient in traffic control.
- 2. SCOPE.** This manual treats of those phases of military traffic which the military police are normally called upon to control. It is concerned primarily with the principles and techniques of control of vehicular, animal, and foot traffic.
- 3. DEFINITION.** **a.** Military traffic control is the control of vehicular, animal, and foot movements over roadways, or in areas where vehicles move, to facilitate

the safe and continuous flow of traffic in conformity with military requirements.

b. Traffic control, as used in this manual, is the enforcement of traffic laws and regulations and external control of traffic movement by military police. The provost marshal exercises staff supervision for traffic *control*. However, at locations where engineer activity is of primary importance, the work of the military police in controlling traffic is subject to such modification and restriction as the engineer officer in charge may deem necessary.

c. For definitions of various other traffic terms, see appendix I.

4. CHARACTERISTICS OF MILITARY TRAFFIC. Military traffic consists primarily of the planned movements of groups of vehicles on a common mission in addition to the random movement of individual vehicles, animals, and foot troops which is characteristic of civilian traffic. As military agencies are subject to centralized control at all times, military traffic is more readily controlled than civilian traffic. Certain measures which are impracticable for civilian traffic can be adopted. Among these are scheduled movements and movements under black-out conditions. At times, enemy interference will disrupt military traffic.

5. PROBLEM OF TRAFFIC CONFLICTS.

a. Conflicts are the cause of most traffic problems. The four types of conflicts in traffic are—

- (1) Between vehicles at intersecting routes.
- (2) Between vehicles proceeding at different

speeds in the same direction, along the same route.

(3) Between vehicles moving in opposite directions on the same route.

(4) Between vehicles moving along a road and objects at the edge of the road.

b. These conflicts, occasional collisions, congestions, and delays are due principally to deficiencies of roads, vehicles, and drivers. There are two general approaches to the problem: First, provide better roads, vehicles, and drivers; second, make better use of the roads, vehicles, and drivers available. The first approach, which is obviously desirable but not always possible, is a problem in engineering, supply, and training. The second approach, which is always desirable and usually possible to some degree, is a problem in planning, regulation, and control. A combination of these two approaches, with emphasis on driver training, will undoubtedly make for more efficient traffic control. (See AR 700-105.) All conflict elimination is done in terms of "time" and "space" separation of traffic. Examples of "time" separations are the regulation of the phases of traffic flow through an intersection and the scheduling of column movements along a route. Examples of "space" separation are underpasses and one-way routes.

c. Military traffic movements constantly encounter problems not faced by normal civilian traffic. The most important of these are enemy interference, operations under black-out conditions, smoke screens or hazes, changing tactical requirements, the movement of vehicles in column, and the necessary concentration of large numbers of vehicles in small areas. Tactical

movements and supply and evacuation traffic require the use of roads under rapidly changing and unpredictable conditions. When the road net is extensive and the amount of traffic movement is relatively light, the problem is comparatively simple. However, when the road net is limited, or the flow of traffic is heavy, the need for coordination and supervision of movement becomes correspondingly greater, and detailed traffic plans are necessary. It may be necessary to assign priorities to movements in order of their relative importance, specify routes, schedule movements, limit traffic densities, and provide active field supervision to insure that movements are executed in accordance with the requirements of the situation.

6. GENERAL PRINCIPLES OF TRAFFIC CONTROL. Traffic control is a command responsibility. Proper traffic control depends upon efficient staff planning and the close cooperation of unit commanders and other agencies concerned. Well-trained military police are important in the development of uniform and forceful traffic control. The basic principle of traffic control is to exercise the minimum control necessary to permit the maximum flow of traffic consistent with safety. Emphasis is placed on *uninterrupted* movement in the combat zone and on *safe* movement in the communications zone and zone of interior. However, in neither case is one stressed to the exclusion of the other.

7. STAFF DUTIES AND RESPONSIBILITIES.
a. Although a commander is responsible for the con-

trol of traffic, the necessary planning and supervision are carried on by his staff.

b. Area control is the regulation exercised over all highway traffic moving within or through a given area, or on its routes or in its areas, by a traffic section. Where there is a Transportation Corps special staff section, part of the functions of the traffic section may be assigned to that section. Where there is no Transportation Corps special staff section, the traffic section in the G-4 section of the staff of the commander concerned will discharge its function. In all cases, the traffic section operates under the supervision of the appropriate G-4 officer, who is the means by which the commander coordinates and supervises all agencies concerned with highway traffic, such as highway transport service in its exercise of highway dispatching, the provost marshal (military police) in his exercise of highway traffic control, the signal officer in providing necessary communication, the engineer in construction and maintenance of roads, and the ordnance officer in the provision for field and depot maintenance of vehicles.

c. The G-3 plans for, orders, and supervises tactical troop movements, and at the same time furnishes information concerning tactical operations and measures, such as smoke screens and hazes, which may disrupt the orderly movement of traffic. At all times he must coordinate with the G-4 on the movements planned and orders to be issued.

d. The engineer advises the commander and his staff on matters relating to roads and bridges. He is responsible for—

- (1) Bridge reconnaissance and recommendations for the traffic circulation plans.
- (2) Supervision of construction, maintenance, and repair of roads and bridges, and clearing of mined areas.
- (3) Supply of road maps and information of changes to existing maps.
- (4) Supply of signs and route-marking materials and *posting* of road signs, bypass signs, mine area signs, and load classification signs on all bridges.
- (5) Control of traffic at locations where engineer work is of vital importance.

e. The provost marshal advises the commander and his staff on matters of traffic control. He is responsible for—

- (1) Traffic control policies.
- (2) Traffic control reconnaissance and preparation of the road traffic control plan.
- (3) Reports of traffic obstruction and damage to roads.
- (4) Establishing and operating traffic control posts.
- (5) Operation of traffic patrols.
- (6) Operation of road blocks necessary for traffic control.
- (7) Enforcement of traffic regulations.
- (8) Local rerouting and rescheduling in emergencies.
- (9) Coordination with other provost marshals.
- (10) Timely instruction to subordinate units and operating personnel, and liaison with other

agencies concerned with traffic regulation and traffic control.

(11) Report of current traffic conditions, including progress of all important movements.

(12) Report on movements of prisoners, and civilian movements, evacuations, or otherwise.

f. A traffic subsection, of the provost marshal section, may be included in the command's traffic section for the purpose of representing the provost marshal and of expediting liaison with other agencies concerned with traffic. The provost marshal traffic subsection normally does the necessary advance planning, maintains the traffic policies established, and issues instructions to military police units. It may be required to coordinate, supervise, and inspect all traffic control operations in the area, and to coordinate and expedite the supply of traffic control equipment.

g. The ordnance officer supervises the evacuation, maintenance, and repair of vehicles. He supplies vehicle accessories, including black-out driving equipment.

8. DUTIES AND RESPONSIBILITIES OF COMMANDERS OF SUBORDINATE UNITS.

The commanders of subordinate units are responsible for the march discipline and column control of their respective units. They are responsible for the selection and training of drivers in both the operation of their vehicles and in all traffic regulations. They are also responsible for teaching traffic control to certain personnel of all units so that, when necessary, each unit is competent to furnish guards and guides for its own movements.

9. MILITARY POLICE DUTIES. a. The successful performance of traffic control duties requires knowledge, skill, alertness, and constant attention to duty. Military police must remember that their primary responsibility is to keep traffic moving without interruption, in accordance with routings, schedules, and priorities. They will be required to think clearly and quickly under stress, to give route and location information, and to make decisions in emergencies. When on traffic duty, they assist the movement of columns and individual vehicles, make local adjustments in routing and scheduling, halt columns temporarily when necessary, and enforce movement priorities in conformity with traffic plans and orders. The manner in which they operate varies with the conditions under which road traffic control is exercised, and the type and degree of control in effect.

b. Road traffic control duties of military police include the following:

- (1) Enforcing traffic regulations and orders, including—
 - (a) Enforcement of priorities and schedules.
 - (b) Enforcement of speed regulations and interval limits.
 - (c) Enforcement of halting, black-out, and dismount regulations.
 - (d) Operation of restrictive control lines, such as light lines, "no passage" lines, barrier lines, traffic blocks, gas-alert lines, and parking, stopping, and standing lines.
- (2) Directing traffic at points of conflict, including intersections, defiles, command and supply

installations, mined and shelled areas, and on beaches.

- (3) Escorting columns.
- (4) Patrolling routes (to include dismounted patrols at defiles, short one-way streets, river crossings, and beaches).
- (5) Reporting traffic movements and necessary road maintenance.
- (6) Gathering and furnishing information.
- (7) Investigating accidents and making thorough and impartial reports.
- (8) Enforcement of civilian control measures.
- (9) Controlling parking areas at command posts.
- (10) Reporting vehicle recovery needs and giving emergency assistance to disabled vehicles.
- (11) Recommending traffic control and road improvements.
- (12) Supervising the evacuation of refugees, wounded, and prisoners of war.

c. As a basis for performance of the above-mentioned duties, military police conduct reconnaissance for traffic control requirements and submit recommendations for traffic control plans. For further discussion of reconnaissance, see section I, chapter 2. See figure 1.

10. AUTHORITY OF MILITARY POLICE. In the performance of their duties, military police are representatives of the headquarters which controls their area, and are not subject to orders from any lesser authority. In a tactical situation, it may occasionally be necessary for a column commander to countermand the orders which a military policeman has been instructed to enforce. In this event, the responsibility

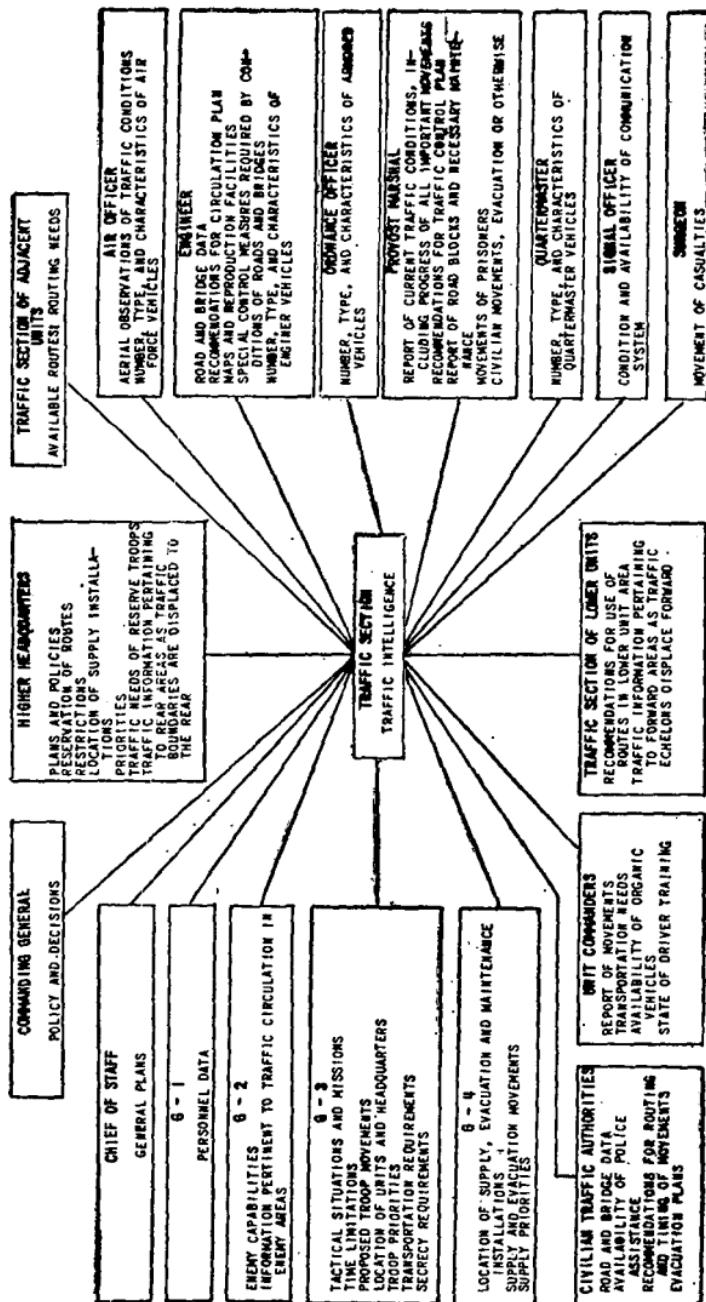


Figure 1. Sources of traffic intelligence (channels not shown).

for making a decision contrary to the military policeman's orders rests with the column commander. When such action occurs, the military policeman will inform the column commander what the orders are as to the existing traffic situation, and, so far as is possible, indicate the probable consequences in terms of traffic disruption. In any case, after the decision has been made, the military policeman will take the name, grade, and service number of the officer countermanding the order, handle the movement with the least possible interference with traffic flow, and make a full report to his commanding officer, who in turn will relay the report to the provost marshal.

CHAPTER 2

RECONNAISSANCE AND PLANNING

Section I. RECONNAISSANCE

11. METHODS OF RECONNAISSANCE. a. Reconnaissance consists of the collection of all data necessary for proper planning. Methods of making a reconnaissance are—

- (1) *Map.* A map reconnaissance is the most expedient method of obtaining information concerning the locations of roads, their general lay-out, and the locations of points requiring control or special consideration. This type of reconnaissance, although quickly made, has definite disadvantages. It must be supplemented by field reconnaissance whenever possible.
- (2) *Aerial photograph.* An aerial photograph reconnaissance, like a map reconnaissance, provides information relative to the general lay-out of the road net. An aerial photograph is usually more up-to-date than a map, and shows more accurately the road net as it actually exists. Like a map, however, an aerial photograph seldom reveals sufficient detailed information for thorough traffic planning.

(3) *Aerial.* An aerial reconnaissance through the use of liaison-type (rotary wing or conventional) planes, can provide an excellent overall picture of the area. This method may prove the most expeditious means of determining the control measures desirable.

(4) *Field.* Actual *field* reconnaissance of a road net is always the best method of obtaining the detailed information needed for proper traffic planning and control.

b. The factors which determine the type of reconnaissance to be made include the time available, the road distance to be covered, and the *amount* of detail *required*. When a field reconnaissance is made, the number of personnel and vehicles available will be a determining factor in the size and number of reconnaissance parties sent out.

c. The size of reconnaissance parties is determined by a number of factors, but principally by the mission and the time available. Two men and a driver usually are sufficient. Normally an officer is in charge of the reconnaissance party.

12. ROUTE AND BRIDGE RECONNAISSANCE.

Route and bridge reconnaissance is a special type of engineer field reconnaissance (see FM 5-6 for complete discussion of engineer reconnaissance) which normally precedes other engineer operations. It is also a continuing function. It is made to determine what traffic and loads a route can accommodate in its present condition, and what improvements are necessary. The data obtained are used to keep an up-to-date road situation map in the traffic section (G-4) (and any

other agency concerned) for use in both tactical and supply operations. The information to be collected will be specified in orders to the reconnaissance party, and will generally include the route followed with mileage between important points; the type and condition of the road, road width, the load capacities and condition of bridges, and the location and nature of all critical points.

13. TRAFFIC CONTROL RECONNAISSANCE.

a. General. Traffic control reconnaissance is conducted by the military police to determine what control measures are necessary to insure the proper circulation of traffic over a road net. Military police traffic reconnaissance should be conducted jointly with other services if possible. If the engineers are unable to make route and bridge reconnaissance, the military police may extend the scope of their reconnaissance to include some of the data usually secured by the engineers.

b. Information furnished the reconnaissance party.

- (1) The tactical requirements directly affecting traffic control, including units to be moved, destination of the movements, and main supply routes.
- (2) Maximum loads expected, maximum over-all lengths, widths, and heights of vehicles when loaded, and minimum turning requirements.
- (3) Personnel and equipment available for the reconnaissance.
- (4) Route or area to be covered.
- (5) Amount of detail required.

(6) Type of report desired; time and place to submit the report.

c. Information to be secured by reconnaissance party.

- (1) *Road information.*
 - (a) Location of routes.
 - (b) Location and character of road blocks.
 - (c) Time and distance measure between various points.
 - (d) Number of traffic lanes available in each section of roadway.
 - (e) Types of surfaces and condition of roadway, including shoulders.
 - (f) Limiting features (clearance heights and widths and maximum allowable loads) of structures such as bridges and culverts.
 - (g) Location and characteristics of routes that provide maximum protection from hostile ground, mechanized, or air attacks.
 - (h) Location of contaminated areas and potential traffic bottlenecks.
 - (i) Maximum gradients of steep hills.
 - (j) Location and characteristics of turn-around and halting areas.
 - (k) Capacity and capability of roads.
 - (l) Location and characteristics of bypass routes or detours around congested areas, fords, and road blocks.
 - (m) Road construction required and in progress.

(2) *Supply information.*

- (a) Facilities for procurement of fuel, repair parts, rations, water, and other supplies.
- (b) Evacuation and hospital facilities.
- (c) Toll charges on route (in the zone of interior).

(3) *Traffic movements.* The probable volume of traffic that may be encountered and any significant time variations in existing traffic flow.

(4) *Control measures.*

- (a) *Location of sensitive points.* Location of all intersections needing control and number of men necessary to effect this control. Railroad grade crossings needing guards. Defiles needing control and the type of control and the number of men needed.
- (b) *Control techniques to be employed.* It is the responsibility of the reconnaissance party to recommend the technique of control to be employed on a given route or within a certain area.
- (c) *Existing traffic flow.* In the zone of interior, information can be obtained from civil authorities regarding hours during which control is needed, volume of civilian traffic, and most heavily traveled routes.
- (d) *Officer and noncommissioned officer posts.* The reconnaissance party recommends certain critical points where officers or non-commissioned officers are needed.

- (e) *Routes for patrols.* The reconnaissance party makes recommendations as to the route over which military police traffic patrols operate. (For duties of traffic patrols, see par. 50.)
- (f) *Locations for signal communication equipment.* Approximate locations are recommended for the installation of communication equipment.
- (g) *Locations for traffic control devices.* Approximate locations for signs and other traffic control devices are recommended.
- (h) *Emergency rerouting.* Recommendations are made for rerouting traffic in emergencies.

d. Radio communications. Two-way radio communication with unit headquarters is desirable. Through the use of radio, reconnaissance parties can relay emergency information to headquarters and receive instructions concerning additional data desired or other instructions.

e. Equipment.

- (1) *Vehicles.* The $\frac{1}{4}$ -ton, 4 x 4 truck usually is best suited for traffic reconnaissance, but an armored vehicle may be preferable in an area where contact with the enemy is imminent.
- (2) *Maps.* Reconnaissance parties should be furnished the best available maps of the area, supplemented by the most recent aerial photographs.
- (3) *Miscellaneous.* Other desirable equipment includes compass, sketching material, pioneer

equipment, notebook, flashlight, and tape measure (for measuring clearance heights, widths, etc.).

14. SIGNS AND SYMBOLS. The signs and symbols that follow are used to record route, bridge, and traffic control information. Additional signs and symbols may be found in FM 21-30.

a. Road symbols. Road information is shown by a single symbol as illustrated in the example below:

A W20 k
8.0 mi

“A” represents the type of road, in this case a good paved road. Other letters are used to indicate the type of road as shown in **b** below.

“W20” represents the width of the road at its narrowest point, in this case 20 feet.

“k” represents the surface material, in this case a concrete surface. Symbols for surface material are as follows:

Concrete	k
Bituminous pavement	bt
Bituminous surface treatment*.....	bs
Brick or block pavement	br
Crushed rock or macadam	m
Stabilized soil, sand-clay, shell, cinders, disintegrated granite, or other select material	sm
Earth	ea

“8.0 mi” represents the road distance between two points identified by dots on the map or overlay.

*A course less than 1" thick is considered a bituminous surface rather than a pavement. However, a road of concrete or other high type pavement covered with a thin bituminous surface is reported as a pavement rather than as a bituminous surface road.

b. Types of roads.

Physical characteristics	Type of surface		
	All-weather. Paved; such as concrete, bituminous pavement, brick, or other pavement.	All-weather. Improved; such as bituminous surface, gravel, crushed rock, stabilized soil, select granular material, or other wearing material. ¹	Earth. Unimproved; dusty when dry, muddy when wet.
Good road (gentle grades, gradual curves, smooth sur- face, good founda- tion)	A	C	E
Poor road (steep grades, sharp curves, rough surface, or poor foundation)	B	D	F ²

¹ Includes roads of these materials treated with a dust palliative or seal coat.

² Probably impassable in wet weather.

c. Road information.

Railroad grade crossing	
Railroad over road	
Railroad beneath road	
Boundary between two sections of road	
Impassable section of road	

Bridge

Movable bridge

Culvert

Tunnel

Rotary traffic

Turn-around location

Parallel line to one-lane road indicates length
of roadway where passing is possible

One-way traffic (arrowheads drawn solid)

Two-way traffic (arrowheads drawn solid)

Alternating one-way traffic
(arrowheads drawn solid)

Supervised route (operated on
limited schedule)

Dispatch route (operated by
schedule system)

Reserved route (can be used
by specific traffic only)

National and State road markers,
respectively

Military route marker

Traffic headquarters

Traffic control post (operated by Military Police)	TCP
Traffic regulation point (operated by Transportation Corps)	TRP
POL facilities	
POL and minor maintenance facilities	
Light line (line beyond which lights are prohibited)	

d. Width of road. The width of the road is indicated in feet. On paved roads it is measured between edges of pavement; on other roads it is measured across the usable width. The width of the shoulders generally is not included in the road width. Maps as a rule indicate the number of lanes rather than the road width. On maps of the U.S. and its possessions, the number of lanes shown are as designated by Federal, State, or county highway bureaus and commissions regardless of the measured widths of the roadways. On maps of foreign countries, a lane is interpreted to be 8 feet or more in width. Thus, any foreign road less than 16 feet wide is symbolized as one lane; a road 16 feet wide and less than 24 feet as 2 lanes; and 24 feet wide and less than 32 feet as 3 lanes.

e. Bridge symbols. Bridge information is shown by a single symbol such as—

$$\begin{array}{c} \text{W18} \\ \hline \text{Clr 14} & \text{Cl 40} \\ & \hline & 20 \end{array}$$

"W18" indicates the width of the bridge curb to curb, in this case 18 feet.

"Clr 14" indicates the overhead clearance of the bridge in feet, in this case 14 feet. When the clearance is unlimited, the symbol "Clr ∞ " is used.

"Cl $\frac{40}{20}$ " indicates the weight class of the bridge and length of critical span. In this case the weight class is 40, and the length of the critical span is 20 feet.

f. Obstacles:

	INDIVIDUAL ROAD BLOCK	BRIDGE OUT
COMPLETED	XX	====
PREPARED BUT PASSABLE		///
PROPOSED		///

15. RECORDING INFORMATION. Road and bridge data obtained on a reconnaissance normally are recorded by means of symbols applied directly to a large scale map or overlay of the area concerned. Notes also may be made to record more detailed information.

Section II. PLANNING

16. DEFINITION. Traffic planning is the progressive and continuous adaption of road movement to the changing needs of the tactical situation.

17. GENERAL PRINCIPLES OF TRAFFIC PLANNING. The principles governing highway traffic planning include—

- a. **Flexibility.** Plans must be adaptable to ready modification, expansion, or alteration.
- b. **Simplicity.** Plans should be simple and contain no more detail than necessary.
- c. **Provision for future operations.** Plans should be prepared to meet highway movement requirements of probable future operations.
- d. **Alternate plans.** Alternate plans, ready for execution, enhance flexibility and facilitate rapid change to meet new highway movement requirements in a given tactical situation.
- e. **Communication.** A signal communication system must be provided in traffic regulation plans for proper execution of the plans.
- f. **Security and secrecy.** Plans should provide for maximum protection from hostile surprise, artifice, observation, and attack.
- g. **Timely issue of orders.** Sufficient time must be provided to subordinate units for reconnaissance and planning for organization of their movements in accordance with designated highway traffic plans, and for accomplishment of their assigned missions.

18. TRAFFIC ORDERS. Orders necessary to carry out highway regulation and control normally are included in paragraph four of the operation order, in paragraph three of the administrative order, or in a highway traffic annex. Traffic circulation maps should accompany the order. The traffic order should contain all information and regulations necessary for the guidance of units using the road net. The following information may be included in the traffic order:

a. Time effective. When provisions of the traffic order extend over a period of time different from that of other paragraphs of the administrative order, the time applicable should be stated.

b. Location of terminals. Locations of supply evacuation, and administrative establishments are usually given in the administrative order. However, information as to the location of all important traffic terminals should be indicated on the traffic circulation map.

c. Routes. Direction of movement on each important roadway, number of traffic lanes, type and condition of surface, weight and clearance limitations of structures or other limiting features, average time distance during daylight between terminals and junctions, and control classification of each route should be indicated when practicable. This information is usually shown on the circulation map.

d. Time and space restrictions. If the use of the roadway is scheduled (see par. 25), or if the roadway is reserved for a designated unit or units during any period of time, such information should be stated in the traffic paragraph, shown on the circulation map, and indicated in a time schedule annex to the administrative order. No passage lines should be indicated on the circulation map.

e. Priorities. Traffic priorities may be indicated by schedules or by time and space reservations. However, if no schedules or reservations have been made, priorities should be stated in the traffic order.

f. Restrictions on type of traffic. Whenever any type of traffic (such as foot troops, animal columns, or empty vehicles) is restricted from using or is

required to use specific routes, the restricted routing should be indicated in the order.

g. Protective measures. Security or passive protective measures may also be given in the traffic order.

h. Traffic communications. All general information pertaining to the location of traffic headquarters and other traffic installations, and to communication regulations affecting them, should be stated. See paragraph 26.

i. Construction. Road and bridge work required and the priorities for such work should be indicated in the traffic order.

19. LIAISON. **a.** Close liaison must be established and maintained with all agencies concerned with traffic control, particularly between the provost marshal and the G-3 and G-4 sections in tactical troop movements.

b. Liaison between the provost marshal and the engineer at any staff level is required.

c. Coordination of traffic between the communications zone and the combat zone is normally effected by the broad over-all traffic plan of the theater. Coordination of traffic between the army service area and the corps rear area is effected by army; coordination of traffic between the corps area and the division area is effected by corps.

d. Liaison between adjacent units may be necessary to provide for coordinated movement.

e. Arrangements with civil authorities for highway movements ordered by local commanders or army commanders normally will be coordinated with the civil authorities by the local transportation officer or the army transportation officer, whichever is applicable.

f. Arrangements for coordination of military police and civil police traffic control activities will be made by the local or army provost marshal.

20. TRAFFIC CIRCULATION PLAN. The traffic circulation plan serves as a basis for routing all classes of movements over an area road net in accordance with tactical and administrative requirements, and traffic and load capacities of roads and bridges. The plan is formulated primarily to provide for the expeditious movement of routine supply and evacuation vehicles and to insure that such movements do not interfere with essential tactical traffic. Provisions are made in the circulation plan for such tactical traffic as can be foreseen. The circulation plan, issued as an annex to the administrative order, normally is shown either on a map or an overlay, and includes road data, location and classification of important installations and terminals, and prescribed circulation on roads. See figure 2.

21. TRAFFIC CONTROL PLAN. a. The road traffic control plan is predicated upon the traffic circulation plan and establishes the necessary over-all uniformity in the planning, coordination, supervision, and operation of road traffic regulation and control. It is the basic plan for road traffic regulation and road traffic control by which the commander discharges his responsibility for area traffic control.

b. The road traffic control plan normally provides for both day and night movements or operations, together with instructions or regulations for the following:

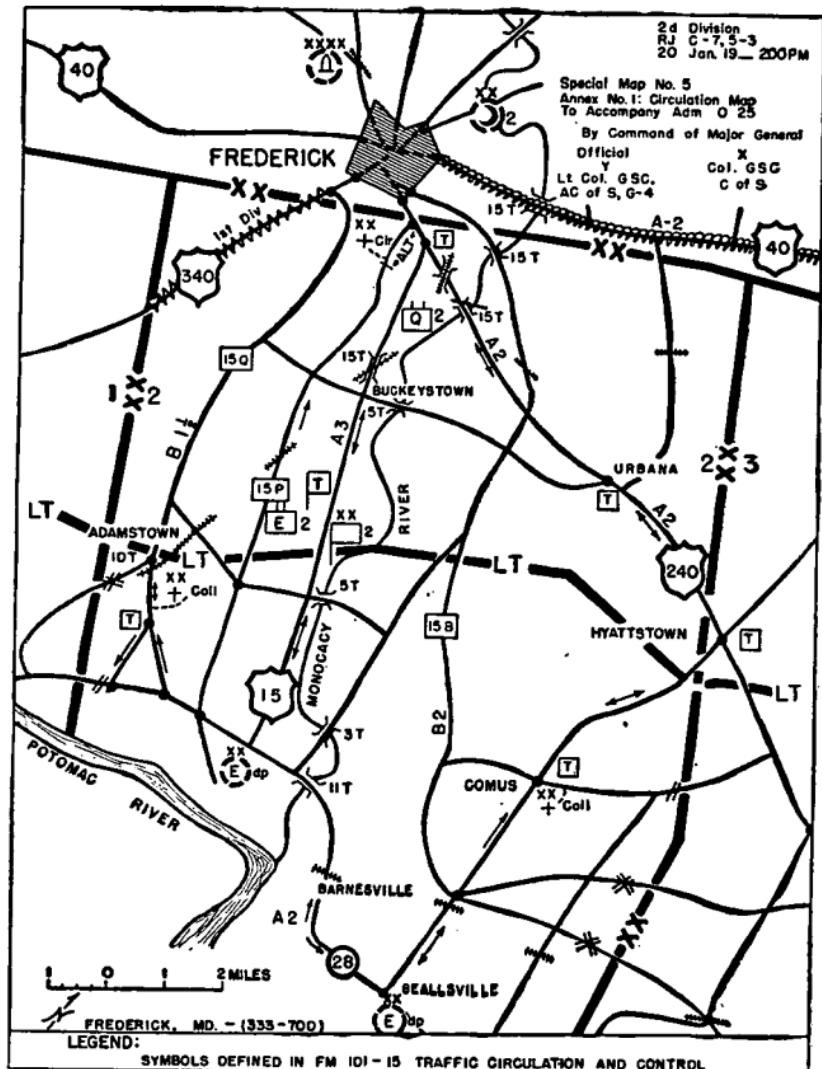


Figure 2. Traffic circulation map.

- (1) Road and bridge classification.
- (2) Route numbering.
- (3) Route signing.
- (4) Movement instructions.
- (5) Road priorities.

- (6) Civilian traffic instructions.
- (7) Communications.
- (8) Protective measures such as "no passage" lines, light lines, barrier lines, and gas alert lines.

c. The plans of subordinate units are coordinated by higher authority to provide adequate control throughout the area, eliminate duplication of effort, and avoid confusion. Flexibility may be provided by augmenting personnel of a subordinate unit with personnel from a higher unit.

22. ROAD TRAFFIC CONTROL SYSTEMS.

Military traffic is controlled by two distinct systems, organizational and area. Both systems are designed to provide efficient movement of traffic on the road net.

a. Area control involves the regulation of all traffic within or through a given area. It is established whenever the number and type of movements in the area are such that unified control is necessary. Military police of the area concerned provide traffic control for all movements within their area.

b. Organizational control is the control exercised by a particular unit along its route of march and is the responsibility of the unit commander. Where area control is unavailable, organizational control is extended to intersection control to assure the unit of proper priority of road use and to provide control at successive points of conflict. All columns moving through an area are subject to traffic orders in effect therein and to the direction of military police enforcing them.

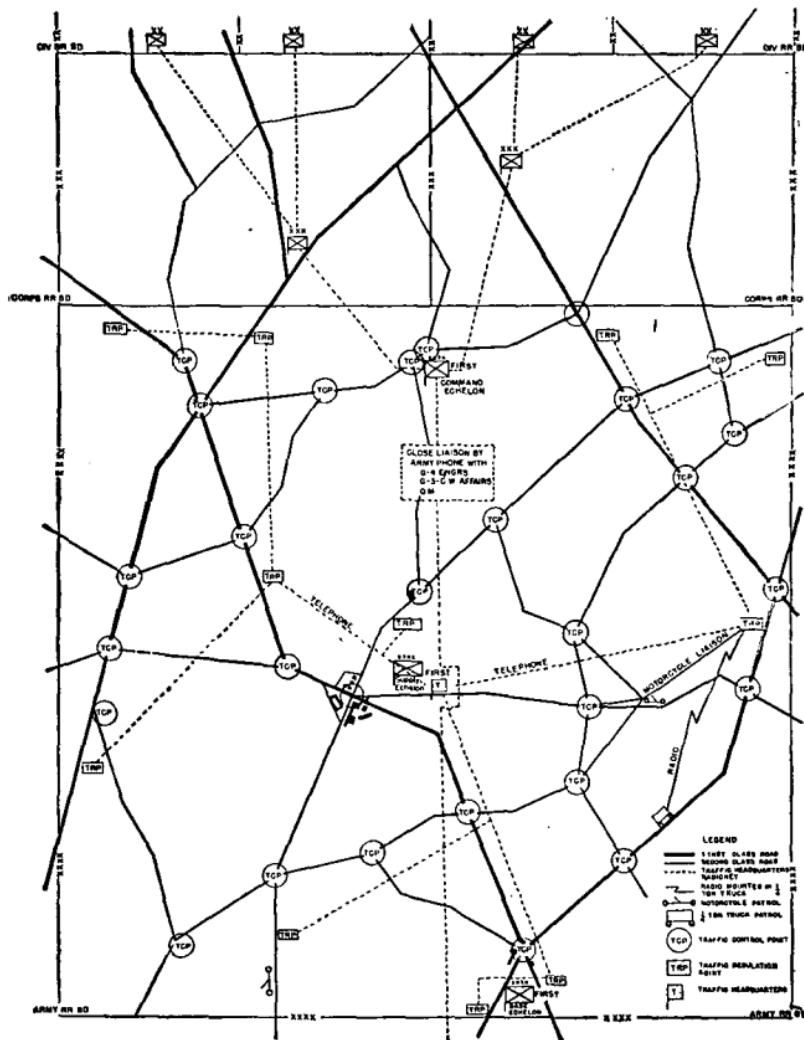


Figure 3. Schematic traffic control plan. Liaison between TRPs, TCPs, and headquarters is aided by patrols as illustrated at right center of map. This plan, taken from an actual operation, is shown for illustrative purposes only.

23. PRIORITIES. a. Priorities establish, in order of time, the precedence of shipments and movements of rail, road, water, and other transport. The designation of a traffic priority is a command function and is based upon tactical, administrative, and traffic considerations. Specific priorities for a given move and reservation of dispatch or reserve routes or routes for special movements are designated by tactical and administrative plans. Isolated vehicles of troop commanders, staff officers, and messengers are allowed freedom of movement whenever they do not interfere with established priorities.

b. General priorities are listed usually in standing operating procedure and usually are established by G-4 and may include all or some of the following:

- (1) Ordnance recovery equipment and engineer equipment proceeding to traffic obstruction.
- (2) Tactical movements of troops by motor.
- (3) Ambulances.
- (4) Wire patrols and communications crews.
- (5) Staff cars and messenger vehicles.
- (6) Supply convoys.
 - (a) Class I (rations).
 - (b) Class III (gasoline and oil).
 - (c) Class V (ammunition).
 - (d) Other supply traffic.

24. CONVOY CLEARANCES. Convoy clearances for movements originating within an area are made by the transportation section or G-4 of the area or command of origin. Normally, the organization requesting clearance supplies the following information:

- a.** Headquarters requiring clearance.
- b.** Name of convoy commander.
- c.** Unit to move.
- d.** Authority to move.
- e.** Total number of vehicles.
- f.** Total number of serials.
- g.** Total number of march units.
- h.** Heaviest type vehicle in column.
- i.** Present location of unit.
- j.** Destination.
- k.** Time and date of movement.
- l.** Route desired.

25. TRAFFIC SCHEDULES. **a. General.** Transportation section or G-4 provides routings and schedules and keeps all scheduled movements under constant control through highway traffic regulation points which may be established throughout the highway network. The provost marshal prepares the plans to *enforce* traffic regulations and road discipline, and provides intersection control; patrols, escorts, and other police coverage. The military police, therefore, assist in the execution of the highway traffic regulation plan, but do not interfere with schedules and routings except in emergencies.

b. Uses of regulation schedules. Highway traffic regulation schedules are employed to provide coordination of highway movements in time and space. Movement according to schedule is controlled by highway traffic regulation points. Schedules are usually necessary on long haul express routes and wherever convoy movement or troop movement taxes road capacity. However, traffic regulation points need not be used

when desired coordination can be obtained more readily by other means, such as assignment of independent routes or zones of movement. Specific uses are as follows:

- (1) To provide time coordination of arrivals and departures of columns and vehicles at points of origin, destination, and at intermediate traffic regulation points in accordance with administrative and tactical needs.
- (2) To provide for movement of traffic in accordance with priorities.
- (3) To minimize delays, conflicts, and congestion by insuring that traffic flow never exceeds the capacity of bottlenecks in the routes and by spreading peak traffic flow over longer time intervals.
- (4) To provide detailed regulation of individual movement.
- (5) To obtain secrecy and protection by prescribing movements during darkness.
- (6) To keep traffic within road capabilities and permit required maintenance.
- (7) To keep all convoys under constant control so that, at any time, they may be rerouted, diverted, put to emergency use, or held to permit passage of priority movements.

c. Types of scheduling.

- (1) *Infiltration.* An infiltration schedule is the vehicular dispatch rate assigned to a unit for a specified period. In an infiltration schedule, vehicles or small groups of vehicles proceed independently to their destination over a prescribed route. The assignment of appropriate

dispatch rates to different units using the same route assures average traffic flow or density.

- (2) *Location.* A location schedule apportions time to different movements at individual locations such as an initial point of march, a traffic regulation point, a city, a town, a village, an intersection traffic bottleneck, or a terminal.
- (3) *Column (including shuttling).* A column schedule designates the arrival and clearance times for an individual movement at specific highway regulation or other points along a prescribed route of march.
- (4) *Route.* A route schedule apportions time to different movements proceeding along or intersecting a given route.
- (5) *System.* A system schedule is the composite schedule for time control of all important movements on a given road net. It is imperative that the military police commanders responsible for area traffic control be completely familiar with the system schedule in effect.

d. Need for schedules. Schedules are necessary for the control of all movements. Scheduling is of vital importance in a changing tactical situation when the location of dumps and tactical or supply requirements are being changed. It is of especial importance on long hauls that extend over long periods of time, during which the tactical situation may change. Other need for scheduling may be discovered through analysis of traffic conflicts.

26. COMMUNICATION. The characteristics of military traffic and the conditions under which it operates require that supervision over movements be coordinated at all times; and that the G-4 or transportation officer, provost marshal, column commanders, and control personnel be informed of traffic conditions and changes in plans affecting their operations. An adequate dependable system of communication must be provided to permit the rapid transmission of messages. The means normally provided are—

a. Radio. Radio can be placed in operation quickly and provides instantaneous two-way communication. Its use must be governed by the exigencies of the tactical or security situation and by the extent of the road net.

b. Wire. Wire systems provide for rapid interchange of information and are not readily vulnerable to enemy interception or interference. In communications between operating or tactical military police units and headquarters, this method is normally used. Wire communication is particularly applicable to the control of traffic at defiles and bottlenecks.

c. Messenger. Messenger service as the sole means of communication usually is not rapid enough for general use with road traffic. It should be employed in conjunction with other means.

d. Aircraft. Airplanes may be used for carrying messages over long distances. Air-ground communication may be established by radio, loud speakers, dropped and picked-up messages, or panels.

CHAPTER 3

OPERATIONS

Section I. GENERAL

27. RESPONSIBILITY. a. The commanding general of the theater of operations establishes the necessary over-all uniformity in the planning, coordination, and operation of road traffic regulation and control.

b. Traffic control in the theater of operations is an area responsibility of the armies and of the communications zone. Road traffic control in the theater of operations is a function principally executed by military police, whereas movement of supplies and men is a function principally executed by the transportation officer. In the combat zone, the headquarters of each division and higher echelon responsible for road traffic control and regulation has a traffic section under the supervision of G-4. This traffic section coordinates agencies concerned in road traffic regulation and control, and operates the road traffic regulating system. (See FM 100-10.)

28. THE PROVOST MARSHAL. a. The provost marshal supervises the provost marshal section of headquarters, has area responsibility for traffic control, and exercises direct supervision and operational control of military police units.

b. In determining the use of his military police organization or organizations, the provost marshal normally divides his area of responsibility into zones to which specified units, companies, or battalions are assigned. His decision is determined by the traffic situation.

c. The provost marshal, as a special staff officer, normally establishes policies and basic standing operating procedures for military police units on traffic control.

d. A traffic section is established in the office of the provost marshal of all commands to plan and supervise traffic control. The guiding factor for determining the number of personnel in a provost marshal traffic section will be the size and characteristics of the area, the volume of traffic, and the military population. It is the responsibility of the traffic section of the provost marshal's office to maintain close liaison with all other agencies concerned with highway traffic.

(1) In armies and corps, the duties of the provost marshal traffic section are normally planning and supervision. At the division level, however, the duties usually are a combination of planning and execution. Sufficient personnel is included in the provost marshal section of an army to operate the traffic section. At corps and division levels, an officer and at least two noncommissioned officers should be detailed from the organic military police company to operate the provost marshal traffic section. The primary difference between army, corps, and division provost marshal traffic

sections is the type, volume, and composition of the traffic to be controlled.

(2) Provost marshals at ports and other installations in base sections and in the communications zone will have more static traffic situations. At these installations, the traffic section of the provost marshal's office can give closer supervision to all traffic-control agencies, and records can be maintained on a more permanent basis.

29. ASSIGNMENT OF PERSONNEL. The detailed assignment of personnel for traffic control is made from information secured by reconnaissance. The success of the control plan depends upon the selection of proper control techniques and the correct assignment of traffic-control personnel, the type of traffic movements, and road and weather conditions under which traffic will operate. Assignment requirements may vary from providing an escort for a column to establishing a system of area control involving intersection and defile regulation, patrols, and escorts. Under a system of area control, careful planning, proper assignment, adequate supervision, and close coordination are essential to the efficient execution of traffic control. Planning is especially important when different units operate in the same area, as when corps or army military police supplement those of a division. It may be desirable to provide for decentralized supervision through the establishment of a subarea of control. Normally when subareas are designated, personnel assignments are made by the subarea provost marshal.

30. INSTRUCTIONS TO PERSONNEL. a. Detailed instructions must be issued to all traffic-control personnel. As military police generally function as individuals under broad supervision, proper instructions not only increase the interest of the individual, encourage his better performance, permit him to furnish correct information, but also increase his ability to act intelligently in difficult situations. The driving and general demeanor of the military policeman must be exemplary at all times.

b. Instructions to traffic-control personnel should include the following: A summary of the general situation and the relation of the assignment to it; essential features of the traffic plan; and the specific duties. Instructions and information may be conveyed by verbal or written orders supplemented by circulation maps. When detailed instructions cannot be issued in advance, they are circulated to control personnel as rapidly as possible by messenger or patrols.

c. Instructions must be as simple as is consistent with the requirements of the situation. Each man must be briefed as to his specific duties and must be given the information necessary for the proper performance of his duties. As far as practicable, instructions may be given verbally, by radio, or by telephone. The circulation of written orders, operations maps, and overlays should be kept to a minimum in forward areas.

d. General instructions to military police assigned to road traffic control duty are as follows:

- (1) Observe and report road deteriorations.
- (2) Observe and report violations of routing regulations.

- (3) Observe and report movement ahead or behind schedules.
- (4) Note bumper markings or unit identification symbols so that straggler vehicles or vehicles separated from their units may be properly directed.
- (5) Correct and report traffic violations.
- (6) Check route marker signs.
- (7) Know the precise area and the location of units and installations, including prisoner of war enclosures and supply installations, in the immediate vicinity or along the route.
- (8) Know the bypasses and turn-abouts in the area.
- (9) Know the location of adjacent traffic-control posts.
- (10) When in doubt, check with the immediate commanding officer.

31. SUPERVISION. Proper supervision of personnel effecting traffic control will assure the successful execution of traffic-control plans. This supervision can be most effectively accomplished by officer and noncommissioned officer patrols. There will be times, however, when it will be necessary to utilize aircraft in order to effect the necessary supervision and control of detached elements of a command.

a. Ground. Officers and noncommissioned officers should be assigned to patrol the road net and be stationed at critical points to provide direct supervision during operations. They *note* and *correct* any weaknesses in either the control system or the control techniques in use. They also are available and *responsible*

for taking charge in any emergency. Direct supervision seeks to insure that—

- (1) All personnel understand their duties.
- (2) All duties are properly performed.
- (3) Correct control techniques are employed.
- (4) Emergency situations are promptly and effectively dealt with.
- (5) Any necessary changes and improvements in procedure are made.
- (6) Proper coordination exists with other units.

b. Supervision of columns. An important function of supervision is to observe conditions or practices such as poor march discipline within columns, inefficient or unsafe use of motor transport, and poor vehicle maintenance which, although not directly related to traffic control, adversely affect the efficiency of traffic movements. All such conditions are reported through channels to the appropriate commander.

c. Air. Aerial supervision is desirable when the situation permits the use of aircraft. The rotary wing or conventional type liaison plane can be used advantageously to check and report the progress of march columns, report slow-ups and unforeseen bottlenecks, and for a quick over-all check of the general traffic situation. To be effective, aircraft employed in this manner must have some type of communication with ground elements. Radio is the most desirable form of communication, but a public address system or panels can be used.

32. METHODS OF CONTROLLING ROAD TRAFFIC. a. The three methods of techniques used are point control, patrols, and escorts.

(1) *Point control.* Road traffic control by point control makes use of fixed traffic posts at road intersections, defiles, bottlenecks, and any other point where streams of traffic conflict; that is, water points, supply points, headquarters, or other installations. In theaters of operations, men normally perform point control in pairs or groups of three or more to insure continuous control. When joint operations are effected over the same road net, it may be desirable to pair military police of the United States armed forces with those of allied forces. (See fig. 4.) In the communications zone and zone of interior, one man usually is sufficient to regulate traffic at a point at any given time. Additional men may be needed at complex or large intersections at night, under adverse weather conditions, and at points where turning movements predominate. The need for occasional control can often be met by dispatching patrols to such locations at critical times. Officers or non-commissioned officers are *required* to supervise control at critical points.

(a) *Intersection control.* Military police are assigned duty at those intersections where conflicting streams of traffic necessitate the continuous or frequent control of traffic flow, where traffic orders restricting movements must be enforced, or where it is probable that critical conditions will develop. They are given specific instructions concerning the degree of regulation to be ap-

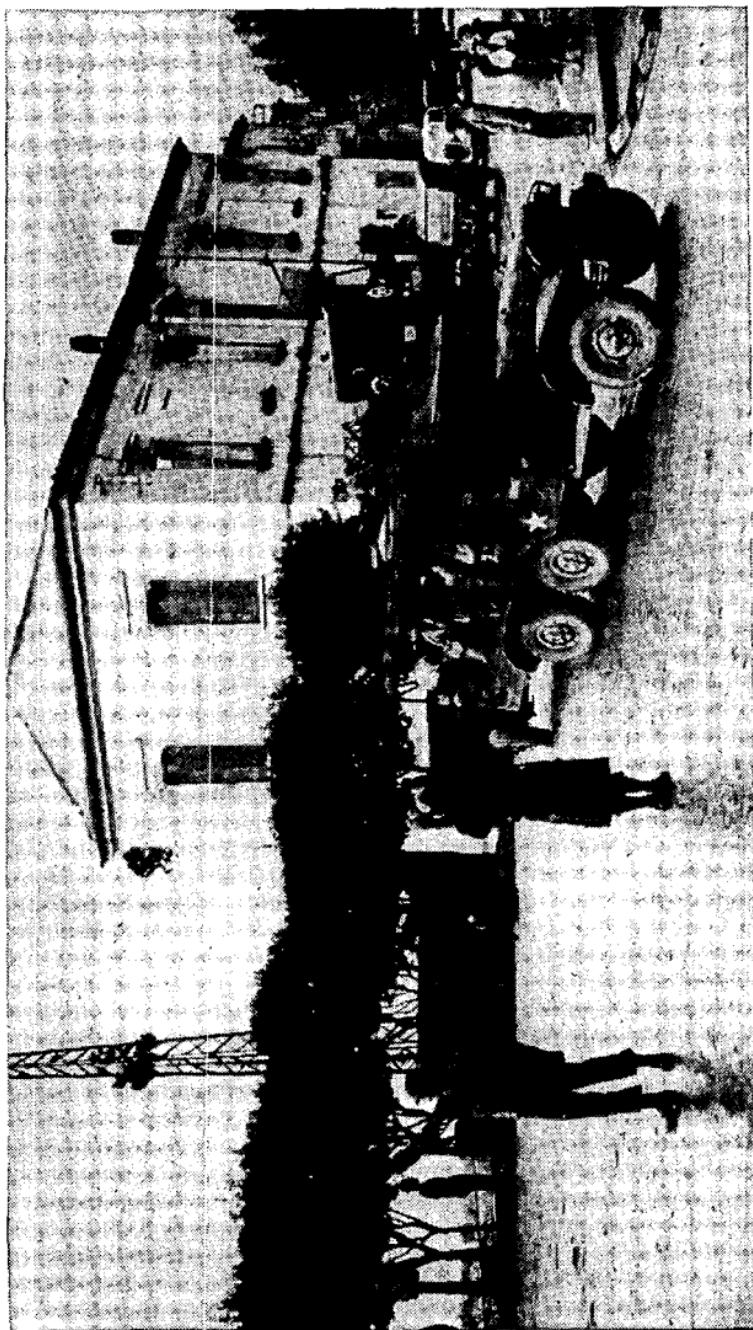


Figure 4. American and allied military police may control traffic together.

plied. As a general rule, and considering only the requirement of regulating the alternate movement of conflicting streams, constant regulation is warranted only where more than 1,000 vehicles an hour pass through an intersection, and where the lighter stream comprises more than 20 percent of total.

(b) *Defile regulation.*

1. At one-way defiles, a minimum of two men, one at each end, is required; in the theater of operations, two men should be posted at each end. In defiles of considerable length, it may be desirable either to station men at critical points within the defile, to establish a patrol within it, or to provide escorts through it. Occasionally it may be desirable to subdivide the defile into two or more posts, with suitable turn-outs provided.
2. Adequate communication facilities within a defile permit substantial economy of personnel. Two-way radio, field telephone, visual signal, or messengers may be used, depending upon availability of equipment and the nature of the defile.

(c) *Control at other points.* The control of traffic at ammunition, fuel, and ration supply depots, railheads, and the command posts of larger units, as well as the operation of information posts at important locations, may be considered as a form of point

control, and the principles of point traffic control applied. (See figs. 5, 6, 7, and 8.)

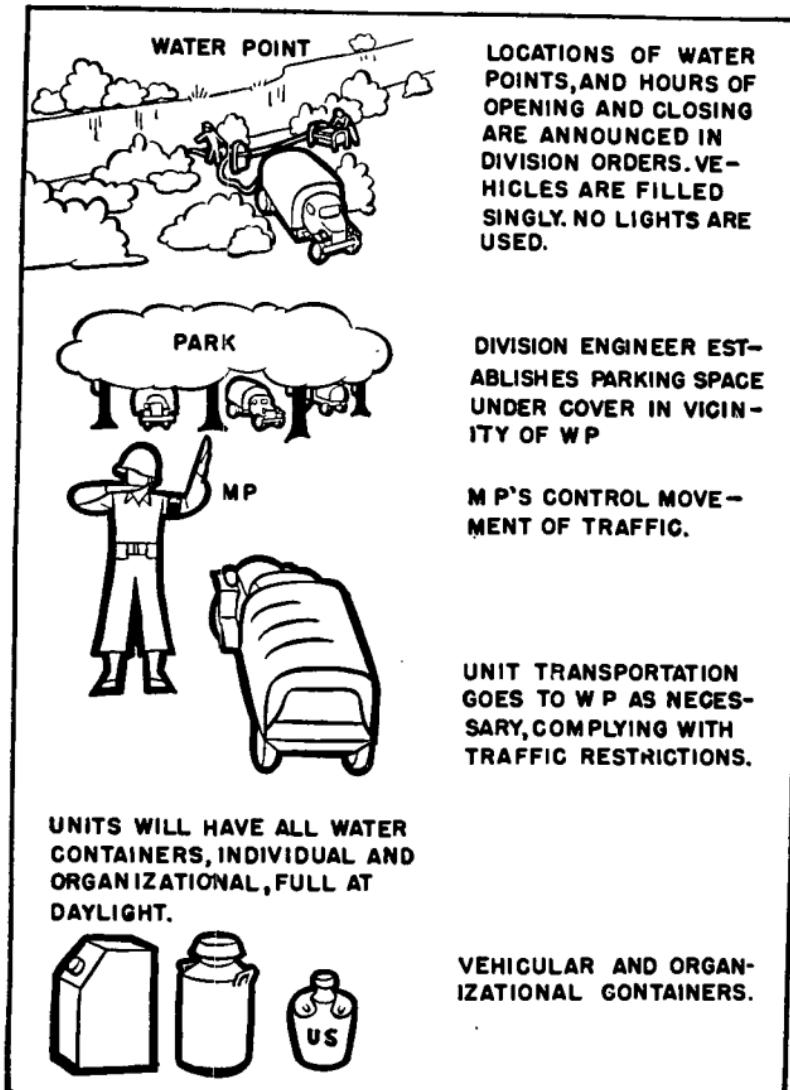


Figure 5. Military police control traffic at water points.

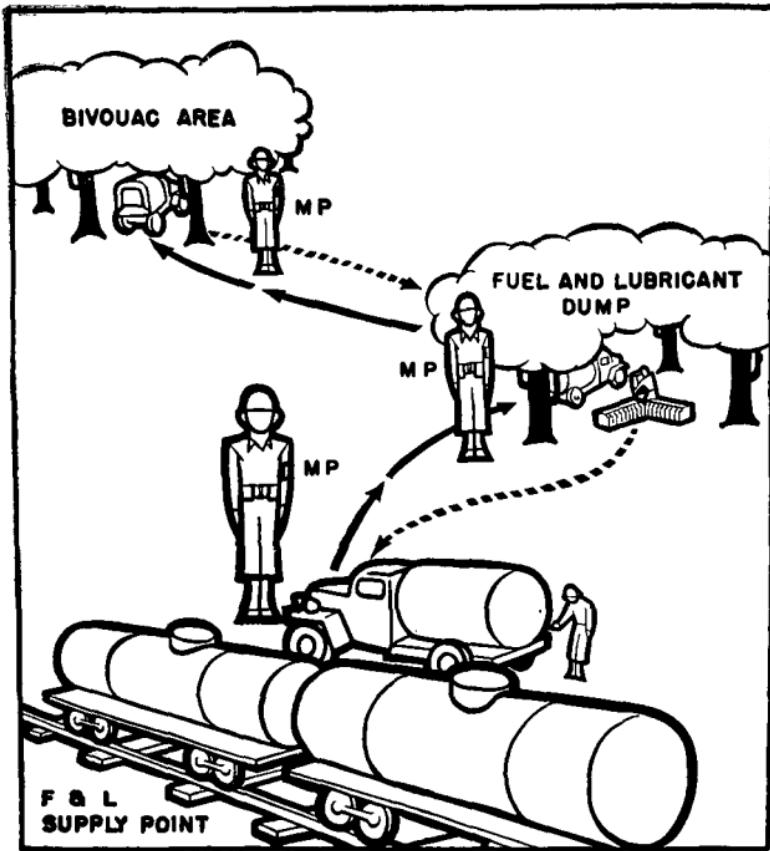


Figure 6. Military police prevent congestion at fuel and lubricant supply points and dumps.

(2) *Patrols.* Patrols, normally consisting of two men, are established in areas or along important routes to connect key control points, to give close supervision to traffic between such points, and to check frequently those places where road or traffic blocks are most likely to develop. Patrols should be used to the greatest practicable extent, subject to demands for

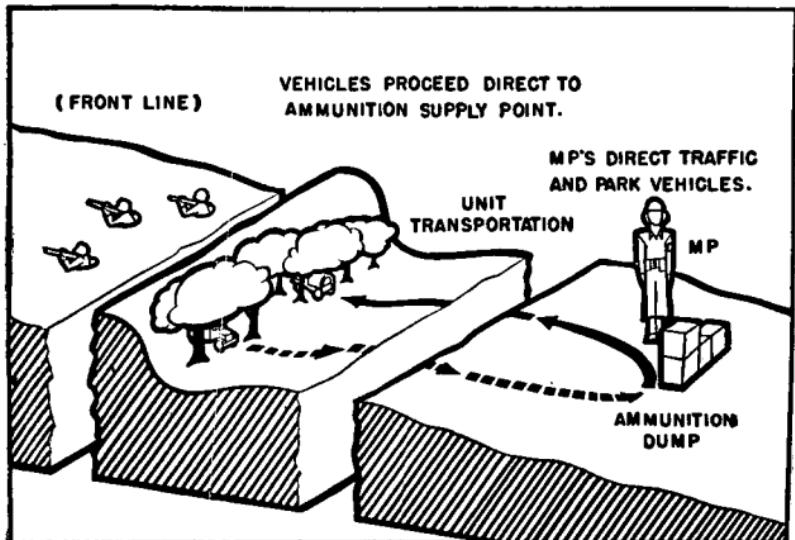


Figure 7. Military police are posted at ammunition dumps to direct traffic.

other types of traffic assignments. By selective assignments, critical areas can be covered.

(3) *Escorts.* Traffic escorts are employed when it is desired to secure priority over traffic. They may be employed most frequently where conflict is anticipated with civilian or less important military traffic. Escorts vary from a few men with individual transportation who precede and follow a column, to a larger number, furnished with individual transportation or carried in a few large vehicles, who are assigned to control traffic at successive intersections passed by the column. The number of personnel required depends upon the expected amount of conflict with other traffic, and the length and speed of the column.

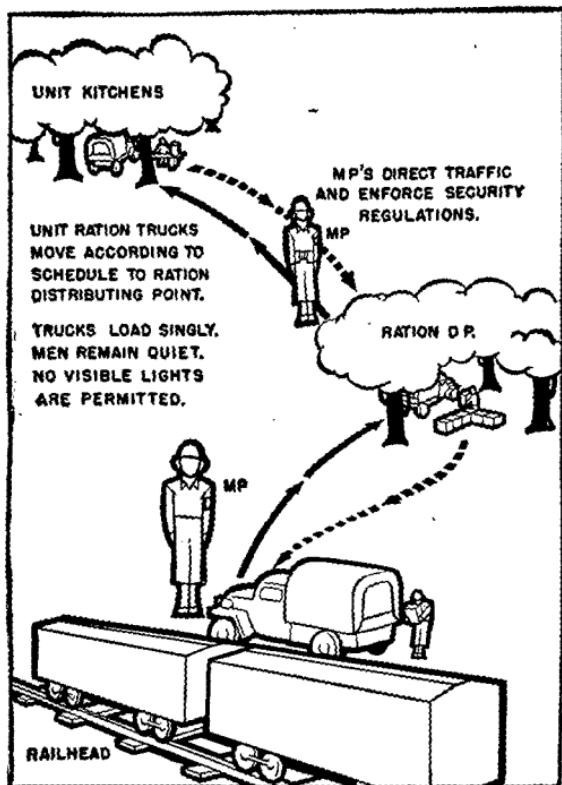


Figure 8. At railheads and ration distributing points, military police direct and enforce security regulations.

b. Aircraft. Special small, low-speed, observation airplanes may be made available for aerial traffic observation and control. These should have equipment for two-way radio contact with ground stations. They should also be equipped with public address equipment capable of transmitting messages clearly audible to ground personnel from altitudes up to approximately 1,000 feet.

33. TRAFFIC REGULATION POINTS. In the communications zone, the transportation section exercises its scheduling functions through traffic regulation points. Traffic regulation points are located conveniently along the routes of all roads upon which traffic regulation is exercised. These points operate in conjunction with traffic control posts (military police) and are established for the purpose of furnishing information on convoy movements and important installations, and regulating traffic density and traffic flow. The transportation section furnishes the necessary information by radio or wire to the traffic regulation points and receives various reports on the progress of all movements by the same means. Convoys, march units, and in some cases, individual vehicles, may be required to obtain clearance from traffic regulation points before entering or traveling within a road net. Traffic regulation points normally operate 24 hours a day.

34. TRAFFIC CONTROL POSTS. a. A traffic control post is a control and information center, operated by military police at principal crossroads or road junctions and other points on a road net. The post normally supervises traffic, gathers and furnishes information concerning installations, headquarters, and road conditions, and reports to the provost marshal or appropriate authority on road conditions, road discipline, and arrival and clearance times of important movements. Traffic control posts maintain contact with headquarters and adjacent posts by telephone, radio, or messenger.

b. Traffic control posts are usually manned by a

minimum of one noncommissioned officer and two privates who perform point control when necessary. The number of personnel required is dependent upon the traffic density and the difficulty of control. An officer may be required for exceptionally important control posts.

c. In the forward areas of a theater of operations, it may be necessary to protect military police from enemy interference while they are performing their duties.

35. FURNISHING INFORMATION. a. General. It is the inherent responsibility of any police agency to furnish information. This responsibility takes on great importance in military traffic control, as the success or failure of a tactical operation may often depend upon the validity of traffic information. Normally, information furnished by traffic personnel will be of a routine nature, but in a theater of operations important orders may be transmitted through traffic military police.

b. Information provided military police. Each military policeman should be provided with a map or sketch of the area in which he is operating. This map should show important routes, establishments, and units, as well as military police control points. If properly briefed, the military policeman should be able to furnish the following specific information:

- (1) Location and map references of his position.
- (2) Location and references of neighboring traffic control posts.
- (3) Location of local headquarters, installations, and dumps.

- (4) Location of nearest installation having wire or radio communication.
- (5) The local road net.
- (6) Places to which local roads lead and distances thereto.
- (7) Detailed route information.
- (8) Local routing and rerouting of traffic.
- (9) Local bridge classification.
- (10) Progress of convoys.

c. Importance of briefing. Military police *officers must never* post their men without first orienting them thoroughly.

d. Technique of furnishing information.

- (1) Before giving directions, the military policeman makes certain that he understands exactly what information is desired. He assures himself that the inquirer actually knows what he wants.
- (2) Distances, compass directions, route names and numbers, names of towns, distinctive land marks, and other facts are given accurately. Inquirers should be warned of locations where they may become confused or lost.
- (3) Precautions are taken to insure that information which is of value to the enemy, such as the location of command posts and other military establishments or the nature of traffic movements, is given only to properly identified persons. Military police must be alert to detect enemy agents, who may pose as civilians or as soldiers of allied forces to seek information. Suspicious indications, such as overinquisitiveness, requests for nonpertinent

directions or information, or requests for information which is generally known should be watched for.

- (4) If unable to answer a question, the military policeman states that he does not know the answer, and, if possible, offers to secure the information or direct the person to someone who can supply it. However, he does not leave his post if it includes the control of traffic at that point. When the information given is an estimate, or the reliability of the information is doubtful because of changing conditions, the military policeman clearly indicates this fact.
- (5) If complex directions are necessary, it may be desirable to give the inquirer a rough sketch or note on which essential facts are indicated. Such sketches can often be prepared and referred to while verbal instructions are being given. Points along a route where additional directions can be secured, or information rechecked, should be indicated.
- (6) When capture by the enemy is probable, or imminent, military police destroy any maps, charts, or other material of value to the enemy in the most expeditious manner; that is, by burning, etc.

e. Traffic information posts. Traffic information posts usually are established to supplement traffic regulating posts and traffic control posts. They are for the express and sole purpose of furnishing information to facilitate efficient traffic movement. The maps,

charts, and other informational aids used in such information posts must be kept current.

36. SIGN POSTING. **a.** Normally, engineers supply traffic-control signs and post them as directed by the commander of the area, and upon the recommendation of the provost marshal. The engineers supply military police with additional general purpose signs for posting as replacements and for other uses in case the engineers are not available. In addition, the military police are provided with a "sign reproduction kit" for the preparation of temporary emergency signs to be used on beachheads and in other combat operations when the situation is such that engineers cannot supply and post all the necessary signs. Signs are used whenever possible in place of personnel for route numbering and route signing to indicate main and lateral routes and detours. They are also used to warn of hazardous points, location of tactical and administrative headquarters or command posts, supply and service installations, and traffic regulating or control points or stations. Functionally, signs are classified as follows:

- (1) Warning signs for hazards and conditions requiring special precaution, such as steep grades, limited clearance, and contaminated areas.
- (2) Regulatory for operation of vehicles at specific locations such as stop, one-way, no parking, speed limit, and weight limit signs.
- (3) Guides to show route designations, destinations, directions, distances, and identification of places.

b. Standard shapes are used for important traffic signs to indicate the type of message carried. (See fig. 9.) Stop signs are octagonal; other regulatory signs such as speed, one-way, and no parking are rectangular; warning (slow) signs are diamond-shaped; railroad signs are circular; and guide signs are square or rectangular, depending upon the length of the message. Signs should be large enough so that drivers can read them from a vehicle while driving at a normal speed.

c. Permanent signs on military installations and on military highways are posted by the engineers, upon the recommendation of the provost marshal. When applicable, recommendations of other services are followed. The size, color, and shape of permanent signs are generally in accordance with the specifications set forth in the *Manual on Uniform Traffic Control Devices* published by the Public Roads Administration.

d. Temporary signs normally will be black letters on a white background. Route signs should be placed 100 to 300 feet before major crossings, turns in the combat and communications zones where a route leads from a major to a minor road, and at staggered crossings to give assurance of route designations and direction. Additional signs may be placed at the point of change, and "reassuring" signs may be placed 50 to 60 yards after the point of change and in several places within the first mile along the new route. Guide signs posted to indicate location of units, headquarters, installations, depots, and traffic regulation and control points are placed on main and lateral routes at the entrances to such installations and from 100 to 150 yards before the entrances. Road junctions and crossroads should not be cluttered with unit or similar signs.

e. Signs in the combat zone normally are 17 x 17 inches, except where a larger sign is authorized by the area commander, and are placed on the side of the road facing and clearly visible to approaching traffic. Illuminated signs are used where necessary. Reflector signs are posted with their upper edge two feet above the ground so they may be illuminated by blackout headlamps.

f. In the zone of interior and in the communications zone, signs near hazards and installations are placed where they will be most effective as warnings and where they can be seen easily by drivers. In rural areas, signs are placed so that the center is 42 inches above the road surface and 6 to 10 feet from the edge of the roadway. In urban areas, the center of the sign should be 8 feet above the surface and 1 foot to the right of the curb. Stop signs are placed at the point where traffic should stop. Speed signs are posted at each end of, and at intervals within, the restricted speed zone. One-way signs are posted at exits and intervening entrances to one-way streets and roads. No-parking signs are posted where the restriction applies. Warning signs usually are posted approximately 150 feet from the hazard, but the distance varies with the type of road. Hill signs, warning of steep down-grades, are posted at the crest of hills. Railroad-crossing signs are posted 15 feet from the nearest track. Signs designating bridge capacity are posted on or near the bridge approach. Road-closed signs are posted at designated detour points. Route signs are posted at intersections and at intervals along the route. Location, direction, or destination signs are posted as required by the terrain and road net.



STOP



LEFT CURVE



RIGHT CURVE



HILL



RAILROAD CROSSING



SLOW
(Speed Superimposed)



BRIDGE
(Add Figure)



SPEED
(Add Figure)



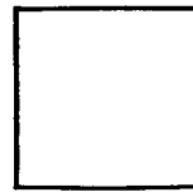
ONE WAY
(Add Arrow)



NO PARKING



ROAD CLOSED



BLANK

Figure 9. Military traffic signs.

**GAS
D.P.**

GAS D.P.
(Add Arrow)

**RAIL
HEAD**

RAIL HEAD
(Add Arrow)

**WATER
POINT**

WATER POINT
(Add Arrow)

**RATION
DUMP**

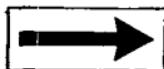
RATION DUMP
(Add Arrow)

DETOUR

DETOUR
(Add Arrow)



BLANK



ARROW

ABC

LETTERS

HILLTOWN 27

123

DIRECTION

NUMBERS



ORGANIZATION
WITH ARROW



LOCATION
(Atlas Grid)

Figure 9—Continued.

g. After they are posted, signs should be checked frequently for legibility. Obsolete signs should be removed promptly. When temporarily not in effect, signs should be removed or covered.

Section II. INTERSECTION CONTROL

(The purpose of intersection control is to provide safe, rapid, and efficient movement through an intersection. Defile regulation makes use of intersection control principles and is discussed in detail in section V, chapter 3.)

37. DIRECTION OF FLOW. a. Often the military policeman is required to direct the flow of streams of individual vehicles rather than column movements through an intersection. He alternates the direction of flow of the conflicting streams in accordance with the capacity and type of the intersection, the volume of traffic, and the principles of flow regulation. A standard plan for all intersections cannot be made; no one plan will work continuously at a given intersection, as

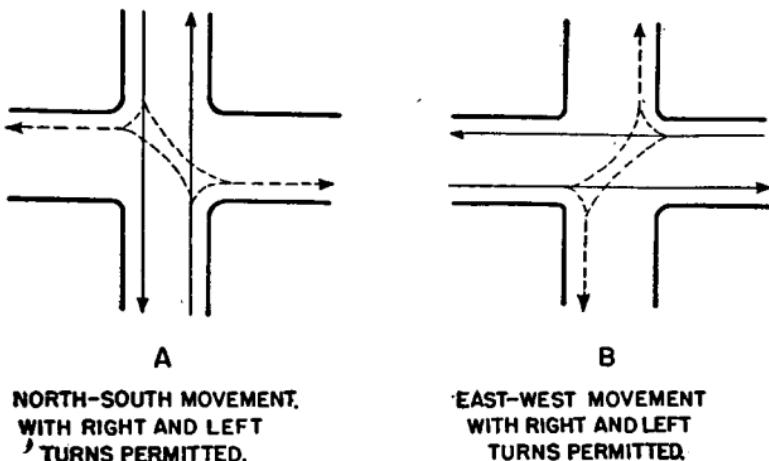
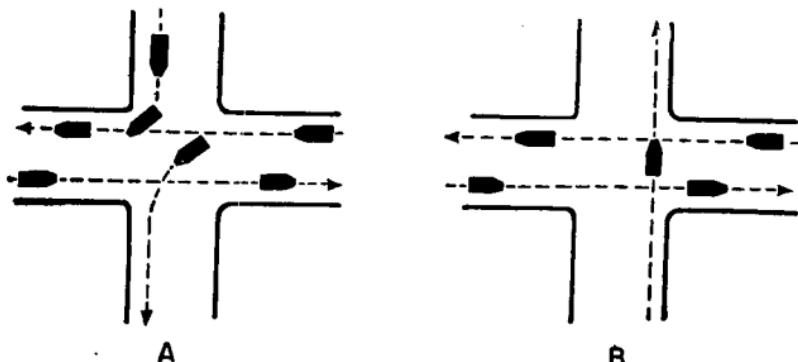


Figure 10. Example of simple two-phase flow.



BLENDING RIGHT-TURN TRAFFIC INTO GAP AND FILTERING LEFT-TURN TRAFFIC THROUGH GAP;

**VEHICLE PROCEEDING
ACROSS INTERSECTION
THROUGH GAP**

Figure 11. Filtering vehicles through gaps in conflicting streams of traffic.

changes occur in the volume and direction of traffic movement.

b. The military policeman determines the best means of alternating traffic flow to provide the least delay, congestion, and hazard at his intersection. He also decides which directions of flow will be permitted to move simultaneously.

c. The simplest and most commonly used plan for controlling traffic in an intersection is by alternating the movement of crossing streams of traffic, with both right and left turns allowed from moving stream. (See fig. 10.) Vehicles desiring to make left turns are filtered through the gaps in the conflicting stream of through traffic. (See A in fig. 11.) Frequently, traffic can be blended into gaps in moving streams or allowed to proceed through gaps in moving streams (see B in fig. 11), provided no conflict occurs. When turning movements are heavy and interfere with the flow of

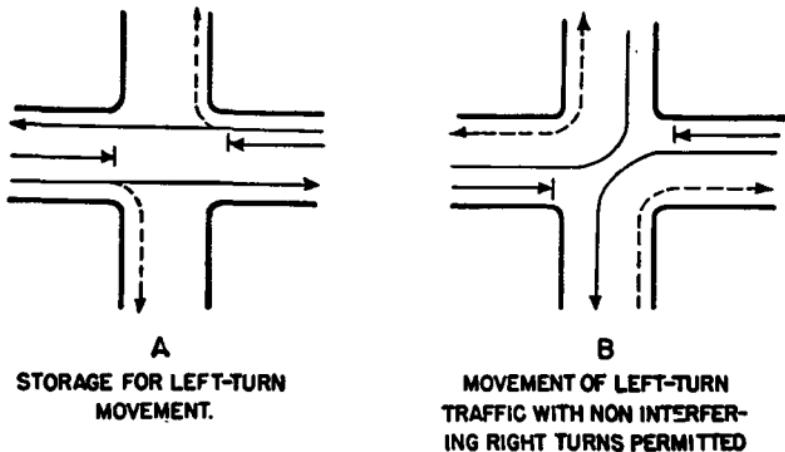


Figure 12. Method of handling turning movements, provided adequate space is available.

through traffic, left-turn traffic may be held until conflicting through traffic is stopped, provided adequate space is available for one lane of halted traffic. (See A in fig. 12.) Right turns may also be permitted when they do not interfere with other traffic. (See B in fig. 12.)

38. DURATION OF FLOW. a. A flow phase is a nonconflicting movement of traffic through a point. The military policeman must determine the length of time each flow phase is allowed to continue before the direction of flow is changed. Since traffic does not approach an intersection uniformly, fixed time allotments are not made to individual flow phases; the lengths of flow phases are varied to meet momentary requirements.

b. The flow cycle (the complete sequence of phase movements through the intersection) usually averages 40 to 60 seconds in length. A longer cycle

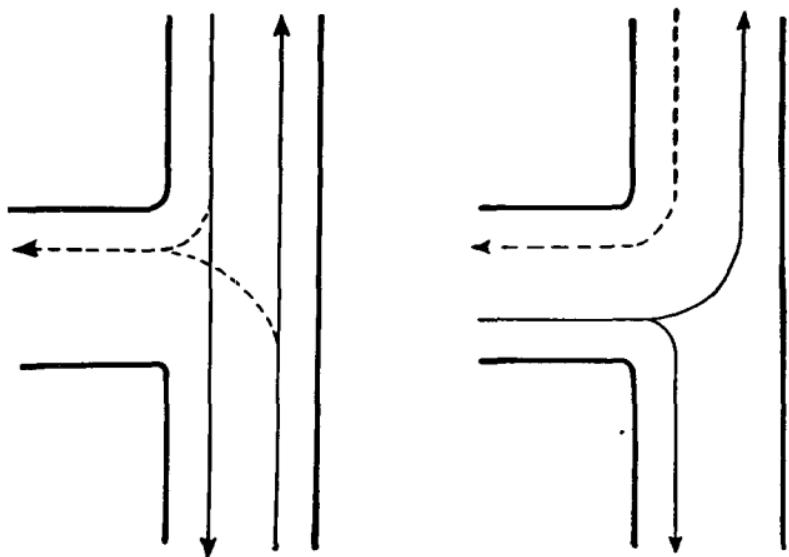


Figure 13. Two-phase cycle at T-intersection.

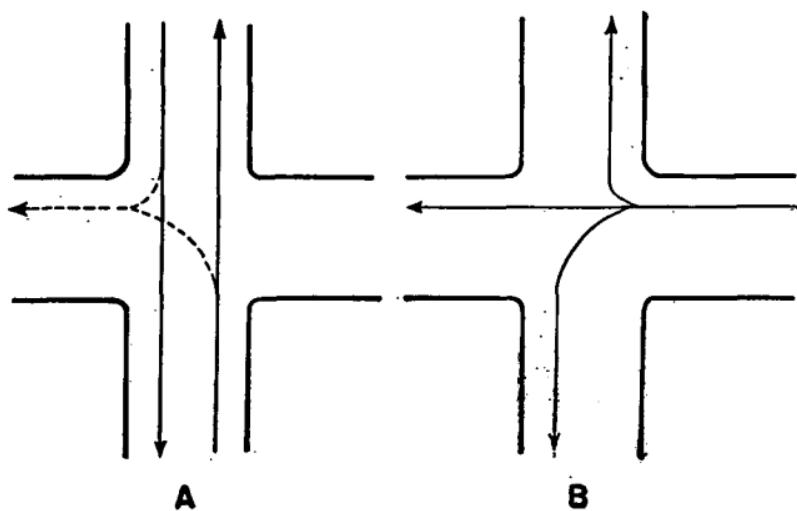


Figure 14. Two-phase cycle, intersection with one-way street.

will often cause long lines of traffic to be held up and may block adjacent intersections. Since the length of the cycle increases with an increase in the number of phases, the least practicable number of phases is used. Phases contained in flow cycles for various type intersections are shown in figures 13, 14, 15, 16, and 17.

c. The time allotted to each phase within a cycle should be in proportion to the volume of traffic in each approaching stream. A phase normally continues for 25 to 30 seconds, but may vary as conditions require. Turning phases are shorter than through-movement phases. Phases that are too short require needless stopping and starting, and the time thus lost seriously reduces the capacity of the intersection.

d. The military policeman must be sure that the roadway beyond his intersection can accommodate all traffic which he allows to move in that direction. As long as he keeps his intersection clear, he is able to

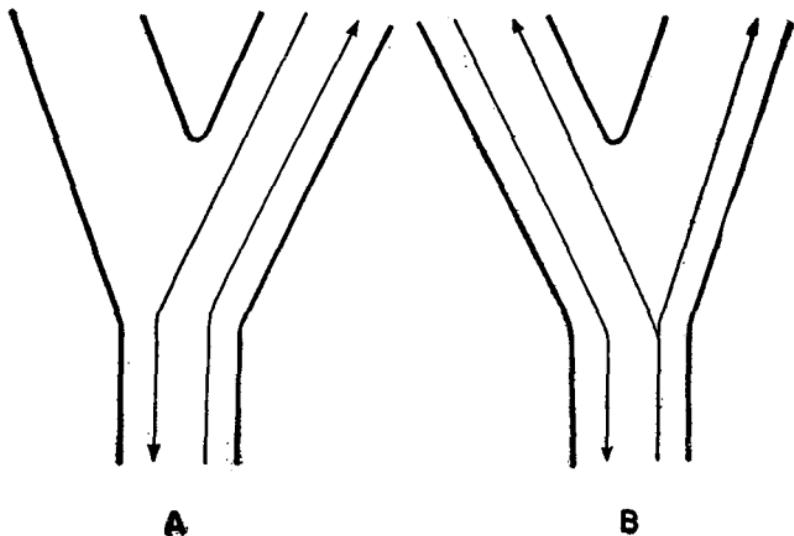


Figure 15. Two-phase cycle at Y-intersection.

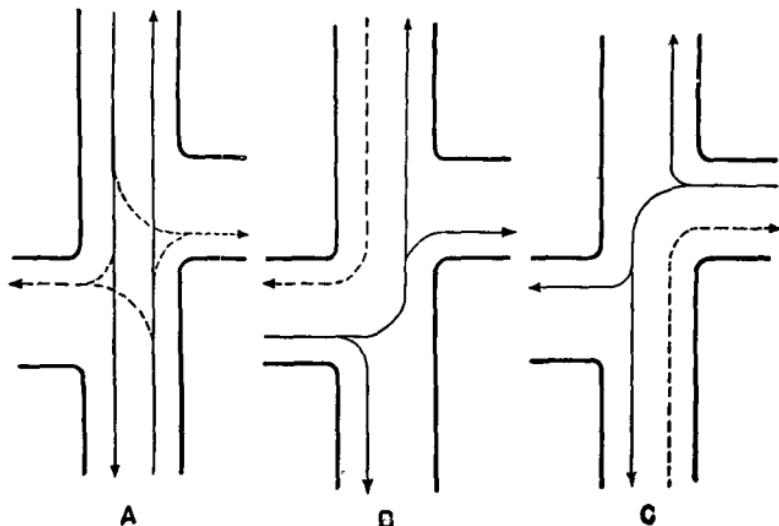


Figure 16. Three-phase cycle at offset intersection.

move traffic through the intersection, even though the road in one direction may be congested. He makes use of gaps to stop moving streams and start cross traffic. It is frequently advisable to stop traffic after a heavy vehicle passes, to avoid delaying other traffic while waiting for a slow-moving vehicle to start. The direction of flow also may be changed when a vehicle stalls or when a driver asks the military policeman for information.

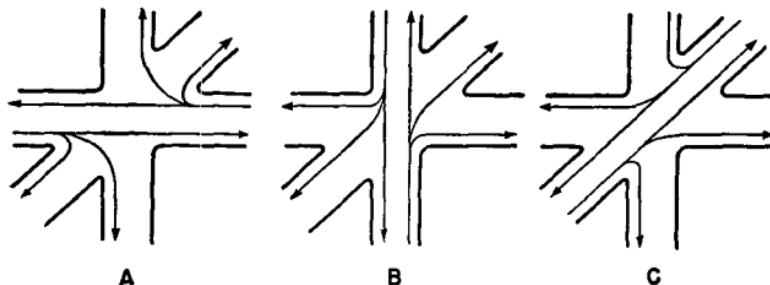


Figure 17. Three-phase cycle at complex intersection, with left turns prohibited.

39. PEDESTRIAN CONTROL. **a.** Most serious conflicts between vehicles and pedestrians occur while vehicles are making turns. If either the volume of pedestrian traffic or the turning movement is unusually heavy, it may be desirable to include special phases during which turns are prohibited and pedestrians allowed to cross.

b. Right-of-way rules applicable to vehicular traffic also apply to movements of foot troops. Columns moving on road shoulders may be allowed to cross individually through gaps in vehicular traffic, or stopped briefly until the flow phase is changed. Troops marching in close formation may be allowed a special phase in which to cross or, if the column is too long, allowed to cross by platoon or company with conflicting traffic crossing through gaps. To provide minimum interference with the flow of traffic, a foot column crossing a heavily traveled road may be directed to cross by flank movement.

40. RIGHT-OF-WAY. **a.** The military policeman regulating traffic flow at an intersection must frequently give right-of-way to certain columns or individual vehicles. Right-of-way is not to be confused with priority. The priority of certain columns, or individual types of vehicles, is the basis on which the military policeman gives right-of-way. He enforces orders designating priorities or scheduled column movements. When right-of-way decisions not covered by orders are required, the military policeman must consider existing traffic requirements and general right-of-way rules in deciding which traffic will be given right-of-way.

b. The following general rules are observed where applicable:

- (1) In combat areas, traffic moving to the front has the right-of-way over traffic moving to the rear.
- (2) Loaded vehicles have the right-of-way over the empty vehicles.
- (3) Organic tactical units moving in column formation are not broken up.
- (4) March units of a column are not broken.
- (5) If the above rules do not apply, and two columns approach the intersection simultaneously, the one for which delay would be least harmful is stopped. Generally, a short column is given right-of-way over a longer column; if the two columns are equal in length, the faster column is given right-of-way over the slower column. Frequently traffic can be filtered through gaps in a long column.
- (6) Generally, the column or vehicle first to reach the intersection has right-of-way; if both reach the intersection at the same time, the one on the right has the right-of-way.

41. EMERGENCY VEHICLES. a. When an authorized emergency vehicle approaches an intersection and gives proper warning that it is making an emergency run, the military policeman stationed at the intersection assures its safe passage through the intersection with minimum delay. He must keep calm and give his signals clearly so they will not be misunderstood.

b. As the emergency vehicle approaches, all traffic is halted except those which would block the path of the emergency vehicle. This interfering traffic is moved quickly out of the way. The military policeman watches to see whether the driver intends to turn, and clears the path for a turn if required. When clear passage is provided, the driver is given the appropriate "go" or "turn" signal. When an emergency vehicle has passed, the military policeman ascertains that no other emergency vehicle is following before starting traffic again.

42. TRAFFIC JAMS. a. The military policeman seeks to prevent traffic jams at his intersection by anticipating causes and taking preventive action before a jam occurs. He provides full use of road width by directing vehicles into proper lanes. In this manner, two streams can frequently be moved simultaneously in the same direction, or vehicles waiting to turn left can be kept from blocking through traffic. When practicable, he causes left turns to be made to the left of the center of the intersection. This provides easier turning and permits opposing turns to be made simultaneously. A driver requesting information is instructed to move his vehicle off the roadway if the vehicle interferes with traffic movement. The driver may be required to approach the military policeman on foot if traffic requirements do not permit the policeman to leave his post. The military policeman must coordinate movements through his intersection with movements through adjacent intersections so that, insofar as possible, traffic conditions at a given intersection will not cause congestion at another.

b. When a jam occurs, the military policeman immediately stops traffic and cautions all drivers not to move until directed to do so. He determines the cause of the jam, and provides for movement of the vehicle causing the jam by moving one or more vehicles off the road or having vehicles back up or close up. He then moves vehicles or streams of traffic as space becomes available, until the congestion has been relieved.

43. POSITION IN INTERSECTION. a. The position taken by the military policeman in an intersection is determined by such factors as the design of the intersection, traffic characteristics, whether daylight or black-out conditions exist, and the degree of control required. The position should have the following characteristics:

- (1) Be visible to approaching traffic.
- (2) Be able to see approaching traffic.
- (3) Not interfere with traffic flow.
- (4) Be located to exercise necessary control.

b. A position in the center of the intersection normally is best (see fig. 18), but in some cases a corner of the intersection or some intermediate point offers a better position. At times, it will be necessary for the military policeman to move about to avoid interfering with traffic flow. When traffic movement is particularly fast, and during conditions of low visibility, special precautions are taken to insure that the military policeman is visible to approaching traffic, that he does not interfere with traffic flow, and that he is in a safe place. In all cases the military policeman must be able to see and control traffic; otherwise, he is of no value in the intersection. At intersections where more than

one man is required for control, each man should be in a position to handle his stream of traffic in the most effective manner.

c. At a normal four-way intersection, the military policeman faces one stream of stopped traffic so that an imaginary line through both ankles is parallel to the direction of flow of streams of moving traffic. (See fig. 19.) Positions taken at other type intersections are basically the same. Feet are placed in a "parade rest" position, and weight is distributed equally on both feet. The body is erect but relaxed to permit free movement and prevent undue fatigue. Hands are at sides when not signaling. Changes in position are made in a military but natural manner. No attempt is made to make facings as in close order drill.

44. DAYLIGHT MANUAL SIGNALS. **a.** Efficient traffic control requires the use of clearly visible, readily understandable, and uniform signals by which information and directions can be transmitted to drivers. Manual signals are used by military police controlling traffic flow in an intersection. They are standardized to prevent misunderstanding by drivers.

b. Clarity of signals must not be sacrificed in attempts to make signals mechanical. Only such signals are given as are necessary to prevent conflict. Over-regulation is both harmful to traffic efficiency and fatiguing to control personnel. If traffic becomes so light that regulation is no longer necessary, the military policeman leaves the intersection until his presence is again required.

c. When giving a signal, the military policeman



Figure 18. Normal position of military policeman in intersection.

looks toward the vehicle or vehicles for which the signal is intended. Only one signal is given at a time. He checks to see that his signal has been recognized and understood, and holds or repeats it if necessary. He continually looks in all directions to see that no vehicle approaches without his knowledge. Where two or more men are posted in an intersection, one man decides on all changes of flow phases and makes appropriate signals. Other men base their actions upon his signals.

d. Verbal directions are given only when manual signals will not convey the necessary information, as in the case of a person requesting route information, and when the person is close enough to hear. Whistle signals are used to indicate change in flow direction and to attract the attention of a driver about to commit a violation or not complying with directions. A single



Figure 19. Close-up of military policeman in figure 18.

blast of the whistle is used when stopping and starting traffic. Quick, short blasts are used to attract a driver's attention, after which necessary manual signals or verbal instructions are given.

e. Manual signals to pedestrians are similar to signals to drivers, but are modified to minimize movement of hands and arms. Care must be exercised that drivers do not misinterpret signals meant for pedestrians. Pointing at pedestrians before giving signals will help prevent such misunderstandings.

45. "STOP" SIGNAL. a. To signal a vehicle or stream of traffic to stop, the arm is extended toward the vehicle for which the signal is intended, the upper arm raised to an angle of 45° above the horizontal, the elbow crooked slightly so that the forearm extends upward at a slight additional angle, and the hand

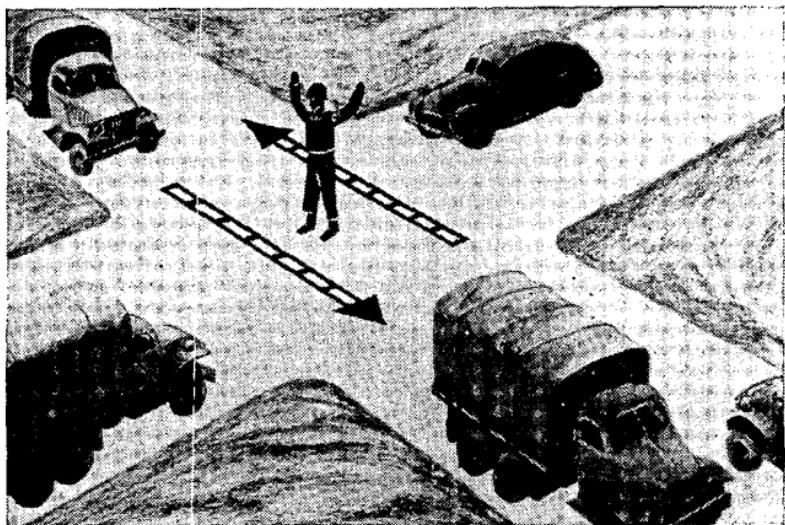


Figure 20. Signaling traffic approaching from the right and the left to stop.



Figure 21. Close-up of military policeman in figure 20.

vertical with fingers together and palm toward approaching traffic. The hand thus is higher than the head, and clearly visible to approaching traffic. (See



Figure 22. Signaling traffic approaching from the front to stop.



Figure 23. Signaling traffic approaching from the rear to stop.

figs. 20, 21, and 22.) To signal traffic approaching from the rear to stop, the legs and body are twisted toward the rear, the feet remaining stationary. (See fig. 23.)

b. The "stop" signal is given in sufficient time that approaching vehicles can stop slowly. The signal may be repeated to a stream which is already stopped when necessary to indicate that it is to remain stopped.

c. The signal is given so that drivers ahead of the vehicle designated to stop will not be confused. It is frequently advisable to point to the last vehicle which is to keep going and repeat the "go" signal, then point to the first vehicle which is to stop and give the "stop" signal.

46. "GO" SIGNAL. a. The hand nearest a stream of traffic is used to signal that stream to "go." The signal is started either from the "stop" position or, if not preceded by a "stop" signal, the hand and arm are first pointed horizontally with fingers extended toward the stream for which the signal is intended. The upper arm is either lowered to or maintained in a horizontal position, the forearm and hand at the same time describing a vertical arc. If traffic is to pass in front of the military policeman, the hand is brought to a final position directly in front of the nearest shoulder. (See figs. 21 and 24.) If traffic is to pass in rear of the military policeman, the hand is brought to a final position directly to the side of the nearest ear. (See fig. 25.)

b. The "go" signal may be repeated rapidly several times to speed up sluggish traffic, but otherwise is not repeated while a stream is moving, except to



Figure 24. Final position in signaling traffic approaching from the right to go.



Figure 25. Final position in signaling traffic approaching from the left to go.

indicate that flow is to continue after a break between vehicles. Unnecessary repetition of the "go" signal is fatiguing, and may be interpreted as a "faster" signal, causing excessive speed through the intersection.

c. At the change of flow direction, the military policeman first stops each stream of moving traffic, holding the "stop" position as it is executed with each hand. When he sees that approaching traffic is stopping as signaled and that the intersection is clear, he turns 90°, keeping both hands in the "stop" position, and from the new position gives the "go" signal to streams to his right and left. Care must be taken to not hold the "stop" signal too long after the turn has been made, as such practice needlessly slows the flow cycle.

47. "TURN" SIGNAL. Permissible turns are indicated by pointing, with the arm and hand horizontal

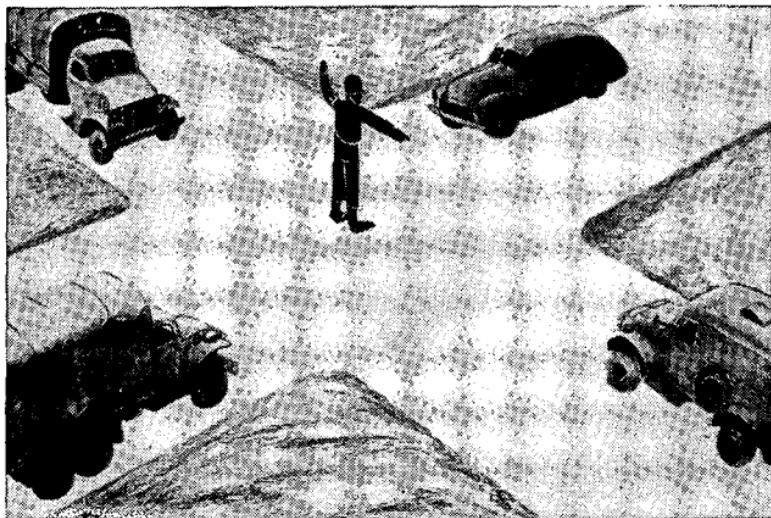


Figure 26. Signaling traffic on the right to make a right turn, keeping traffic on the left halted.



Figure 27. Close-up of military policeman in figure 26.

and fingers extended, at the vehicle which is to make the turn, and then swinging the arm and hand horizontally until it points in the direction the vehicle is to proceed upon completion of the turn. While giving the signal, the military policeman looks toward the vehicle which is to turn. The arm nearer the approaching vehicle is used to indicate the turn; the other arm, when necessary, is used to stop other traffic. (See figs. 26 and 27.) When the vehicle is to turn to the rear of the military policeman, the legs and body are twisted to complete the signal to the rear, the feet being kept stationary. (See fig. 28.) The military policeman must be alert to receive drivers' signals indicating desired



Figure 28. Signaling traffic on the right to make a left turn.

turns. If a driver wishes to make a prohibited turn, the military policeman shakes head "no," using his whistle to attract the driver's attention, if necessary, and indicates by appropriate arm signal whether the vehicle is to proceed straight through the intersection or stop until signaled to turn.

48. NIGHT MANUAL SIGNALS. a. Using reflectorized baton.

- (1) The reflectorized baton is suitable for manual signals under both ordinary night and black-out conditions. Under normal conditions, the bulb in the baton is not turned on; the amber

reflector buttons reflect light from the headlights of the vehicles. The bulb is used to illuminate the baton when signals are given during black-out; the light is extinguished except while a signal is actually being given. The principles and procedures for daylight signaling are followed at night, with such modifications as necessary. Night signals are given slowly and deliberately, frequently repeated and exaggerated, so that they will be understood. Brief pauses are made at the beginning and end of each signal. Careless



Figure 29. Signaling traffic approaching from the front to stop.

movements of the baton must be avoided. It must be borne in mind that drivers approaching from several directions can see the baton. Distinct signals must be given to each stream, and care exercised to keep one stream from executing a signal intended for another.

(2) It usually is desirable to keep the baton in one hand. The military policeman may reach across his body to execute baton signals which would in daylight be executed with the other hand. However, movements must be accurate and precise.



Figure 30. Signaling traffic approaching from the rear to stop.

(3) To execute the night "stop" signal, the baton is held upright in front of the face. The base is held in a fixed position and the illuminated extension is swung several times to an angle of 45° each way in a vertical arc at right angles to the path of the approaching vehicle or stream. (See figs. 29 and 36.) The night "go" signal is executed in the same manner as the daylight "go" signal, by pointing the baton at the stream of vehicles for which the signal is intended, and executing a vertical arc with the baton ending in the position



Figure 31. Signaling traffic approaching from the right to go.

assumed in the daylight signal. (See fig. 31.) Care must be exercised not to point the baton directly at the vehicle or stream, nor to drop the illuminated portion behind the arm as the signal is completed, thereby blocking part of the signal from the driver's vision. Night "turn" signals are executed in the same manner as daylight "turn" signals. (See figs. 32 through 35.) As in the case of the "go" signal, the baton must not be pointed directly at the vehicle or stream.



Figure 32. Signaling traffic approaching from the left to make a left turn.

b. Using ordinary flashlight. Where reflectorized batons are not available, an ordinary flashlight may be used with or without appropriate colored disks. The light is "aimed" toward each traffic stream when signals are given, care being taken not to elevate it above horizontal, or to shine it toward traffic other than that for which the signal is intended. The military policeman faces the traffic for which the signal is intended. To signal "stop," the light is moved horizontally back and forth several times across the path of approaching



Figure 33. Signaling traffic approaching from the left to make a right turn.

traffic. (See fig. 36.) To signal "go," the light is moved several times vertically in line with the course of approaching traffic. (See fig. 37.) It may be necessary to give the signal to each vehicle as it approaches. To indicate a turn, the light is rotated in a vertical plane, describing a circle 12 to 18 inches in diameter. (See fig. 38.) The direction of rotation indicates direction of the turn, a counterclockwise movement (from the military policeman) for a right turn, and a clockwise movement for a left turn.



Figure 34. Signaling traffic approaching from the right to make a right turn.



Figure 35. Signaling traffic approaching from the right to make a left turn.

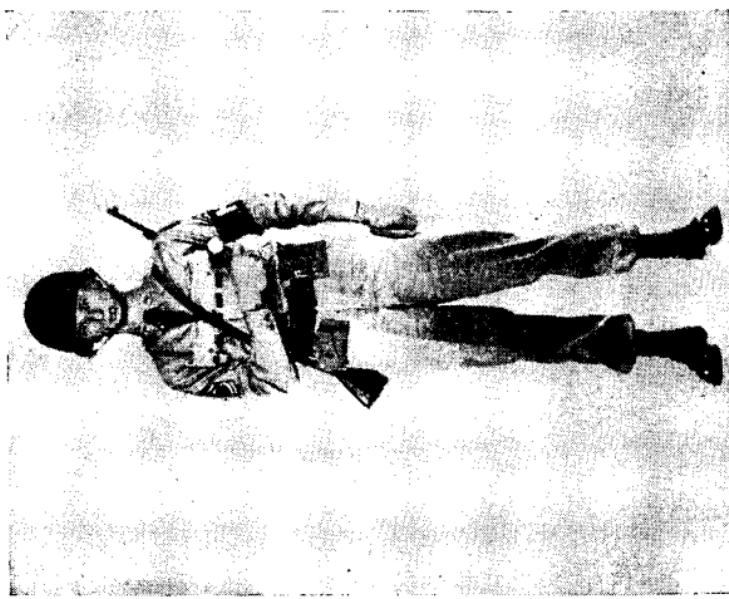
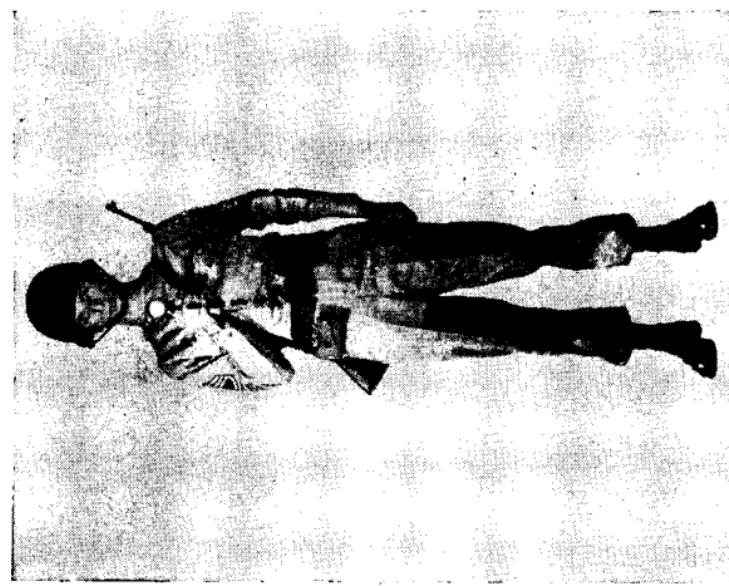
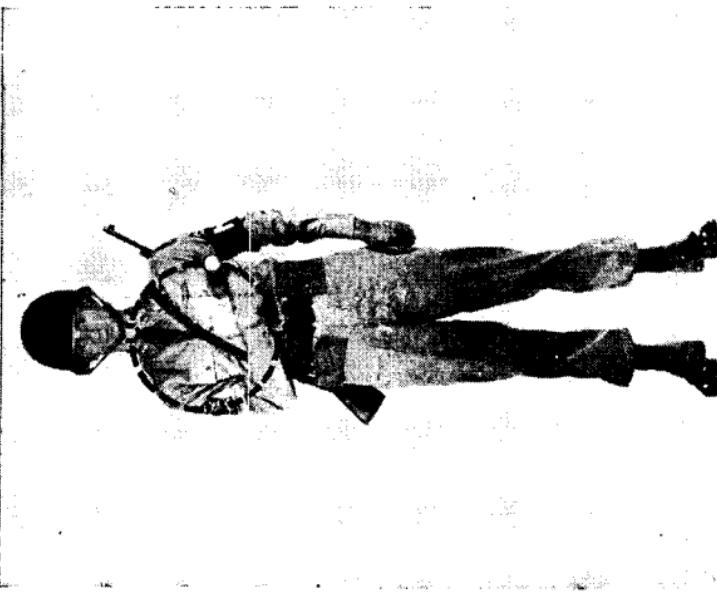


Figure 36. "Stop" signal, using ordinary flashlight. Figure 37. "Go" signal, using ordinary flashlight.

A. "Right."
B. "Left."
Figure 38. "Turn" signal, using ordinary flashlight.



Section III. PATROLS

49. GENERAL. A traffic patrol usually consists of two military policemen who operate between traffic control posts, provide liaison between posts, supervise traffic movements, and enforce traffic regulations and orders. Mounted in small vehicles or motorcycles or on foot, patrols cover their routes thoroughly, constantly seeking information and controlling traffic. They seek to prevent or minimize the danger of road and traffic blocks.

50. DUTIES. Patrols perform the following duties:

- a. Observe and report necessary road maintenance and road construction.
- b. Recommend changes in the traffic control plans, to increase traffic efficiency.
- c. Report need for new traffic signs, and make immediate replacements when necessary.
- d. Enforce traffic control regulations.
- e. Furnish information and directions.
- f. Handle traffic accidents.
- g. Assist traffic control personnel at fixed posts, when necessary.
- h. Regulate traffic, when necessary, at locations where control is not otherwise provided.
- i. Report the progress of columns.
- j. Report unanticipated traffic movements.
- k. Provide emergency escorts for columns, when necessary.

51. PATROLLING IN MILITARY OPERATIONS. a. The technique employed depends upon



Figure 39. Patrols are alert to report the need of road maintenance.

whether the primary mission of the patrol is to check critical points or to provide general supervision between points. When checking critical points, a patrol moves quickly from one point to another. When providing general supervision, it cruises slowly along routes between control points. Patrols usually employ a combination of both techniques with emphasis being placed on the currently important phase.

b. Patrol operations at one point should not be suspended because control is required elsewhere. One member of the patrol is dispatched to perform the new mission, while the other military policeman continues upon his mission. Whenever possible, headquarters is notified so that a portion of the reserve may be dispatched to the scene and permit the regular patrol to be resumed.

c. Patrols give primary attention to critical locations. (See fig. 39.) For example, a bridge is checked frequently if its destruction would seriously impair traffic circulation. Similarly, possible traffic bottlenecks at which military police are not stationed are visited frequently. Often it is desirable for a patrol to halt for a short time at a critical point to observe conditions and determine whether special attention is warranted.

d. Occasionally, patrols must move with the main stream of traffic to supervise the conduct of a portion of it. However, wherever possible, patrols circulate freely in order to expedite the movement of the entire column. They observe traffic and must at all times avoid creating a hazard or obstruction by their manner of operation.

52. TRAFFIC PATROLS IN ZONE OF INTERIOR. In the United States, traffic regulation and control are the responsibility of the civil police. However, during military movements, military police may be called upon to control traffic along the routes taken by the convoys. Control is exercised primarily over personnel and vehicles of the Armed Forces.

53. TECHNIQUE OF PATROLLING. a. Patrolling normally is conducted openly. Military police patrols generally should combine open and nonobvious supervision by dividing their time between cruising their assigned road or area and parking near high-accident intersections to observe traffic performance. Such parking should be on roads and in the open where the patrol will be visible to any alert motor vehicle operator who is not traveling at an excessive speed. Visible military police patrols encourage voluntary compliance with regulations by potential violators.

b. The determination of speed and apprehension of speed violators is an enforcement technique used in patrolling that must be skillfully executed. It requires accurate speed determination, safety of military police patrols, and safety of other traffic. As speed estimation by observation is subject to error, this method should not be employed except in situations where other methods are not feasible and when the speed is so excessive that the possible error in estimation is essentially immaterial.

54. PURSUIT. Provided it is accurately done, and unnecessarily dangerous driving by the patrol is avoided, the pursuit and pacing of a traffic violator to secure

a speedometer reading is generally satisfactory. The patrol paces the speeding vehicle long enough to determine definitely the speed at which it is traveling. When the pursued vehicle is overtaken, the patrol pulls abreast and signals the driver of the other vehicle to move to the right of the road and stop. Speedometers of patrol vehicles must be checked frequently; the military policeman must be able to testify that the speed registered by the speedometer at the time of the violation was correct.

55. BLOCKING A ROAD. To block a road in order to prevent the passage of a vehicle wanted by the military police, the patrol endeavors to select a location where the road and shoulders are narrow, and where the least opportunity exists to make a U-turn. Suitable locations may be at a culvert, bridge, cut, or a short distance beyond a sharp curve. The patrol vehicle is parked facing at an angle in the direction from which the wanted vehicle is expected to approach. It covers as much of the roadway as possible. The driver dismounts and stays near the patrol vehicle; if resistance is anticipated, he places himself so that he is protected by the vehicle or other vantage point, offering cover in case he encounters counterattack gun fire. Other members of the patrol take positions either on or beside the road, depending on the situation, at points from which they can cover the occupants of the wanted vehicle when it has stopped. At night, except under blackout conditions, the headlights of the patrol vehicle are turned on, although not at such an angle as to blind the driver of an approaching car. Military police, other than the driver, place themselves along one or

both sides of the road at approximately the point where the wanted vehicle will halt. They keep out of the rays of the headlights, so as not to offer a silhouetted target.

56. MAKING AN ARREST. When stopping a vehicle, the patrol vehicle pulls alongside on the left of the vehicle to be detained, and the military police order the vehicle to be stopped at the edge of or off the road and inform other traffic of the impending stop by proper hand signal. The patrol vehicle then drops behind so as not to be in the headlights of the detained vehicle or in direct observation of the occupants. A military traffic violator is seldom criminally inclined; however, caution should be exercised when stopping and approaching an operator until it is reasonably certain that he or other occupants of the vehicle will offer no resistance. One military policeman approaches the car from its rear or flank while the other member of the patrol remains dismounted near the patrol vehicle, in such a position that he can observe and assist his partner.

Section IV. ESCORTS

57. GENERAL. The mission of a traffic escort is to expedite the movement of a particular column, usually by obtaining for it the right-of-way over traffic of lesser importance or assuring that it is not unduly delayed by other traffic. However, a column moving under escort does not necessarily have priority over all other traffic. Escorted columns moving through terri-

tory under area control are subject to the traffic orders in effect therein, and to the direction of the traffic control personnel enforcing them. Escort personnel *must not* interpret its duty to be the procurement of uninterrupted movement of its column, regardless of existing regulations. Its mission is determined by the plan of the march and the specific instructions issued for its operation.

58. DUTIES. In performing its mission, escort personnel performs some of the functions of both intersection and patrol duty. It moves out in advance of the column to—

- a. Provide necessary traffic control at unregulated intersections or those where existing regulation (as by traffic signal) is inadequate or inappropriate.
- b. Advise traffic control personnel encountered along the route of the approach of the column.
- c. Discover any road or traffic blocks or imminent hazards to safe continuance, and either eliminate them or notify the column commander so that proper action may be taken.

59. POSTING ESCORT PERSONNEL. a. **General.** Escort personnel may consist of military policemen and guides. Military policemen are posted at points where traffic control is necessary. Guides are normally used at points where directions need to be given but control of traffic is not required. Escort personnel is posted by one of the following methods: "Leapfrog" method; "empty truck" method; or escort patrol or modified "leapfrog" method.

b. **“Leapfrog” method.** Each military policeman of the escort detail is provided with transportation, usually a motorcycle or a $\frac{1}{4}$ -ton, 4 x 4 truck. Members of the escort move ahead of the column and take posts at successive locations along the route where control is or may be required (intersections, one-way defiles, turns, halt points, and turn-arounds). As soon as the tail of the column passes a man, he leaves his point, overtakes and passes the column, preferably while it is halted, and moves ahead to take post at the first point requiring control beyond the next preceding member of the escort detail. Each man in turn follows this procedure, so that members of the escort are continually “leapfrogging” the column so long as such control is necessary. When this method of escort is employed, column speed should be appropriately slower to preclude excessively fast driving by “leapfrogging” escorts.

c. **“Empty truck” method.** The escort moves out ahead of the column in large vehicles, each vehicle except the first carrying one less man than its capacity. The escort commander proceeds in the lead vehicle, which carries only the *escort commander*, the *driver*, and *one additional man*. When the first control point is reached, the lead vehicle is parked and the additional man is posted. The escort commander mounts the second vehicle and, followed by the other vehicles, it proceeds to the next control point where a man is placed. Other men in this vehicle are successively posted, the driver parking his vehicle and waiting at the last post. The commander then mounts the third vehicle and repeats the process with this and succeeding vehicles until all personnel is posted. Each man is

fully instructed in his duties either before or when he is posted. In addition, each man is given a number as he is posted, the numbers being assigned consecutively beginning with the first man posted. The driver of each vehicle falls in behind the column and picks up control personnel until his vehicle is filled, checking the number of each man as he is picked up to insure that no man is left behind. As soon as a discrepancy in number is discovered, the driver can quickly find the missing man. As each truck is filled it either follows the column, or, if the men are needed ahead, passes the column during a halt, so that the men can again be posted ahead of the column. Each driver in the escort detail should have a strip map of the route of march. When necessary, the driver may be posted.

d. Escort patrol or modified "leapfrog" method. Each military policeman of the escort detail is provided with transportation, as in the "leapfrog" method. Members of the escort move ahead of the column and take posts at successive locations along the route where control is or may be required. As soon as sufficient vehicles cross the intersection to assure that the *column itself* has control of the intersection or point of control, the man leaves this point and passes the column, and proceeds to the next point needing control. This procedure is repeated until the column reaches its destination, or reaches a point where no control is necessary.

e. Relative merits of the methods. The "leapfrog" method assures greater flexibility and mobility than the "empty truck" method. The "leapfrog" method often requires the use of less personnel, since "leapfrogging" the column may be accomplished more

rapidly. Small trucks or motorcycles are better able to overtake and pass the column than are large trucks. The "leapfrog" method has the disadvantages of being difficult and very hazardous, because military police must pass a column at high speed against opposing traffic. On narrow, dusty, muddy, or slippery roads, at night, or during inclement weather, the "leapfrog" method should not be attempted except when essential to the success of the tactical mission. If escort requirements are fairly simple, and sufficient men are available, the "empty truck" method is preferable. The escort patrol, or modified "leapfrog" method, is especially adaptable for short moves of small columns or convoys when a light cross-current of traffic is expected at the intersections or points of control. The modified "leapfrog" method *never should be used when long columns must pass dangerous uncontrolled intersections.*

60. ESCORT INTERSECTION CONTROL. Escort personnel regulating traffic at intersections through which the column must pass will observe all applicable rules for intersection control.

61. LEAD ESCORT. Escort personnel may be detailed to lead or follow a column. Those ordered to precede the column are alert for any interference, such as slow-moving traffic or congestion between intersections. Escorts leading the column do not ordinarily set the pace of the column. Those following the column handle stragglers and assist in enforcing regulations and orders. In event of an accident, they stop, render aid, and assist if necessary in investigation and salvage

operations. They also protect the rear of the column during halts.

62. MILITARY POLICE MOTORCYCLISTS.

a. Military police motorcyclists must be thoroughly familiar with traffic control principles and must be proficient in the care and operation of the motorcycles. In the discharge of their duties they must demonstrate the tact and poise characteristic of a well-trained military policeman, and must, through their bearing and conduct, seek to win readier compliance with traffic rules by the drivers.

b. Motorcyclists escorting convoys familiarize themselves with the route to be followed and the special regulations for the control of the column.

c. When working in pairs escorting convoys, motorcyclists normally precede the column, taking posts at successive points along the route where control is required. They operate in the same manner as military police in $\frac{1}{4}$ -ton trucks (see pars. 57, 58, and 59).

d. Military police motorcyclists ride with backs erect, sitting fully in the saddle with knees pressed against the gas tanks of the machine. This position may prevent injury to legs or hips in the event of an accident. Crash helmets, when worn, will be fastened securely. As a safety measure to prevent collisions, military police motorcyclists will maintain a distance of at least 100 yards when patrolling roads.

Section V. DEFILE REGULATION

63. GENERAL. One of the most complex problems of agencies concerned with road traffic control in a



Figure 40. A ponion bridge makes defile regulations necessary.

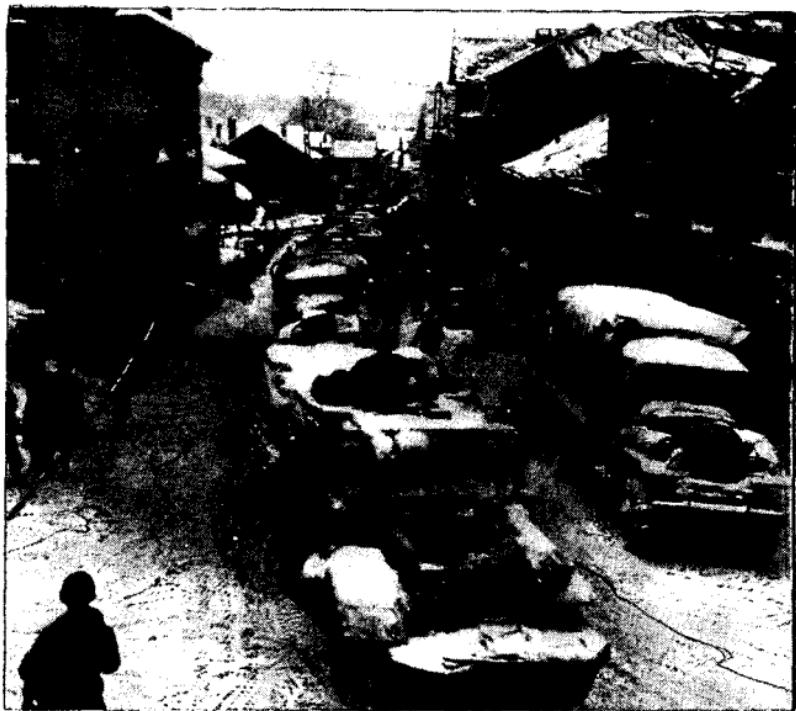


Figure 41. Narrow medieval streets create bottlenecks that must be regulated.

theater of operations may be that of effecting smooth efficient flow of traffic over the roadways available. Blown bridges (see fig. 40), narrow medieval roads and streets (see fig. 41), mined areas, and many other obstacles may make two-way passage on roads impossible. Defiles, for the purpose of discussion in this manual, are defined as those roads, bridges, and other points where road traffic can move only in one direction at a time. The regulation of traffic flow at defiles is similar to that used in intersection control in that right-of-way is alternately allotted to streams of traffic moving in opposite directions. As the conflict at defiles

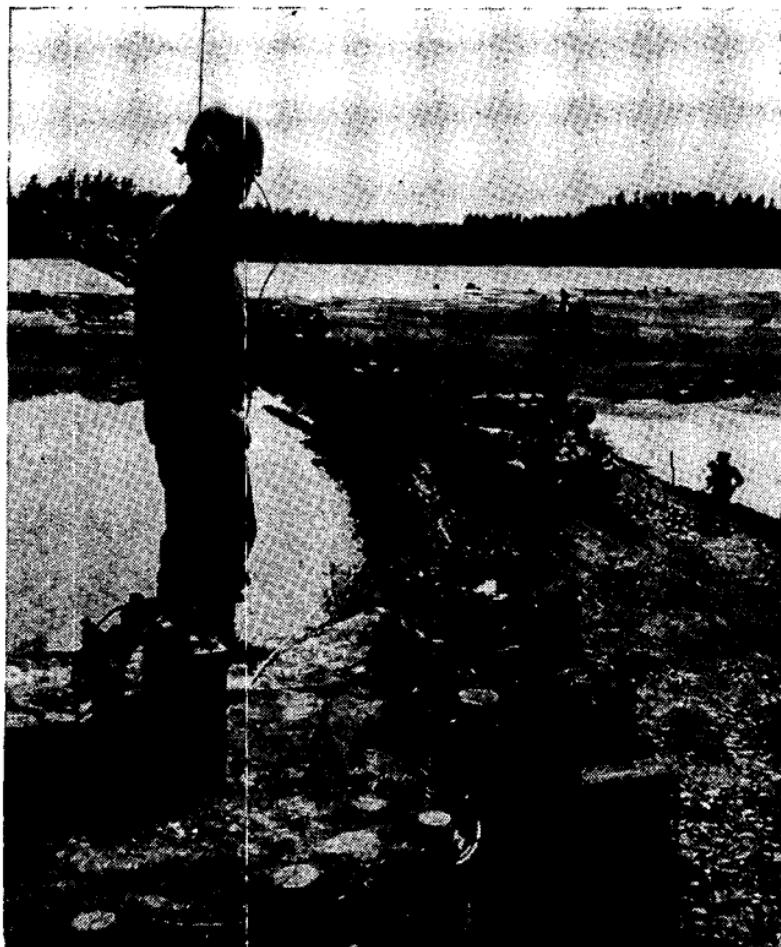


Figure 42. Military police may use radios to control traffic in defiles or on bridges.

is caused by lack of road width, the duration of flow, methods of signaling, and general right-of-way considerations used in intersection control are applicable to defile regulations. Traffic control procedure at defiles will vary with the length of the defile, visibility, and the control and communication equipment available. (See fig. 42.)

64. CONTROL POINTS. To provide basic control at defiles, military police are posted at sufficient distance from each end of the defile to prevent vehicles from blocking the entrance. Some defiles may be such that additional men must be posted some distance from the entrance to keep vehicles spaced properly and prevent double parking. Traffic parks may be required at extended defiles. If the defile entrance is obstructed by an obstacle such as a blind curve or a hill, either a warning sign or a military policeman is posted before the obstruction. Nearly every defile will present a different problem of control; however, the fundamental principle of control of movement into the defile at each entrance will apply to all.

65. REGULATION OF FLOW. a. Traffic is permitted to enter a one-way defile from only one direction at a time, and then only when it is known that the defile is clear of traffic. Visual signals may be used when men controlling movement can see each other. In long defiles, men may be posted at points where they can relay visual signals from one end to the other. If the defile is short and view of the terminals obstructed, sound signals may be used. Telephone or radio communication between the ends of a long defile is highly desirable. (See fig. 43.)

b. A simple system of defile regulation is the use of a flag or other distinctive device which is either handed to the driver or hung on the front of the last vehicle permitted to enter the defile. The military policeman at the other end takes the flag as the vehicle leaves the defile. He in turn sends the flag back to the



Figure 43. Telephone communication may be used between the ends of a defile.

opposite end by the last vehicle which he permits to enter the defile. Traffic is sent through the defile only by the military policeman in possession of the flag (or device), unless he determines by other means of communication that the defile is clear.

c. When personnel is posted only at the ends of a defile and a traffic block occurs within the defile, the military policeman at the end toward which traffic is moving immediately notifies the other end of the block. He then renders assistance in clearing the defile.

d. When sufficient control personnel is available, each group of vehicles may be followed through the defile by a traffic patrol, or a military policeman may ride on the last vehicle of each unit. During black-out operations, this method of assuring that the defile is clear is frequently necessary. Besides acting as a messenger, the military policeman can also handle any one of the numerous emergencies that may arise within the defile. Other advantages of this method over the flag method are:

- (1) More positive assurance is given that the defile is clear.
- (2) More frequent observation may be made of the conditions throughout the defile.
- (3) Improper stopping of vehicles within the defile may be prevented.

e. Military police following columns through a defile must be alert to assist in maintaining or increasing traffic flow. If the column stops, they go forward immediately to the road block and take corrective action. Immediate steps must be taken to prevent other vehicles from entering the defile while it is blocked. If immediate resumption of traffic flow is not possible due to a serious road block within the defile, a report is made immediately by the quickest available means to the traffic section (G-4) and the provost marshal so that necessary action may be taken to restore normal flow, or that traffic may be rerouted. If rerouting is

impractical, vehicles should be moved into parks or dispersal areas until the jam or obstacle has been cleared. (See par. 73.) Vehicles never are allowed to close up near entrances to defiles. (For a more complete discussion on parks and dispersal areas, see par. 58.)

f. Close supervision by patrols within a defile and coordination of regulation at its ends are desirable in the case of a long defile, especially when heavy and important traffic is being handled, when road, weather, and visibility are poor, or when other factors make control difficult.

g. If a defile is exceptionally long and there is danger of columns becoming lost en route, a traffic escort or traffic posts may be used. Normally, proper directional signs will suffice.

66. DURATION OF FLOW. a. Duration of flow in one direction through a defile will be governed largely by principles of flow regulation and by military considerations discussed under the subject of intersection regulation. When most traffic is moving in one direction, it should be given continuous right-of-way except when a sufficient demand for movement in the opposite direction occurs. The operation of a long defile in this manner makes telephone or radio communication between the ends highly desirable. Upon the approach of a column or a sufficient amount of general traffic moving in the direction opposite to that of the major flow, word should be sent to cut off the flow through the defile. The priority of the traffic waiting to enter the defile determines how soon the flow into the defile should be cut off.

b. Unless it is imperative that the progress of individual vehicles be continued, the major traffic streams should not be interrupted. If, however, the flow is so light in one direction that interruption might occasion undue delay for those arriving first, more frequent interruption of flow to accommodate a relatively small amount of traffic may be justified. By constant communication between men stationed at the ends of the defile, the best manner of accommodating such vehicles may be determined. Full advantage should be taken of gaps in the major flow to filter vehicles through the opposite direction. Thus with heavy flow in both directions, right-of-way must be alternated as at an intersection and in accordance with the same governing principles. The fewer the changes in direction, the greater the traffic capacity of the defile. Therefore, a continuing demand from one direction should be accommodated as long as possible without causing road congestion beyond the other end of the defile when traffic is waiting to enter it. Maximum use of the defile, in accordance with traffic demands, must be assured at all times.

67. SPECIAL TYPES OF DEFILES. Essentially the same technique is applied in other situations generally similar to defile regulation. More common situations are—

a. **Column passage.** A column passing another moving in the same direction on a two-lane road must operate in the lane normally assigned to traffic moving in the opposite direction. Patrols and escorts must determine that this lane is clear before the passing movement is begun. The use of a prearranged flag,

message, or other signal, preferably supplemented by traffic personnel trailing the column, conveys notice that the passage has been completed. Whenever practicable, passage of columns is made either at a point where the number of lanes available, or the possibility of moving the overtaken column off the road, makes one-way traffic control unnecessary.

b. Alternate one-way routes. During certain periods, to increase traffic efficiency under special conditions, a route may be operated as a one-way road alternately in opposite directions, even though the road could carry normal two-way traffic. Also there will be times when a two-way road has certain parts that will accommodate only one-way traffic. Close supervision is necessary to permit opposing streams of traffic to use one-way parts of roadways.

c. Bombed or shelled routes and mine fields. The control of traffic along routes which have been bombed or shelled and through gaps in enemy mine fields is a type of defile regulation, and the principles of defile traffic control are employed. (For details concerning mine fields, see pertinent engineer field manuals.)

d. Bridges. Defile regulation may frequently be required at bridges, particularly when the bridge is narrow or capable of supporting only a limited weight. All military vehicles, except certain light vehicles whose gross weight when loaded is less than 5 tons, are marked conspicuously with their weight class in tons. Engineers mark bridges with the maximum weight permitted for vehicles. Traffic control personnel directing traffic at one-way bridges, floating bridges, and bridges undergoing repair must be thoroughly briefed as to bridge capacities, minimum allowable interval

between vehicles, speed, and types of vehicles to be excluded from crossing.

68. USE OF WRECKER. A heavy wrecker should be stationed at that end of all critical one-way defiles from which the greater volume of traffic is emerging. It may be wise to require the wrecker to precede traffic through the defile each time the flow phase changes. This is necessary in order that the wrecker may easily reach any stalled vehicle. The wrecker is placed at the end of the defile from which traffic is emerging, so that it will be able to back up to the disabled vehicle and pull it forward out of the way. The method of use of a wrecker on a one-way road is similar.

Section VI. PARKING

69. GENERAL. Proper parking of military vehicles is required for safety of personnel, security of equipment, and avoidance of traffic congestion. Any obstruction that decreases the normal width of a street or highway creates a threat to safe driving; therefore, thorough planning for parking, preventive regulation, and enforcement must be employed to assure steady, safe flow of traffic.

70. PARKING IN CONGESTED AREAS. Streets are built for moving traffic, not for vehicle storage. Maximum flow of traffic can be obtained only when streets are free of obstructions. Plans for curb parking, therefore, must take into consideration the effect of

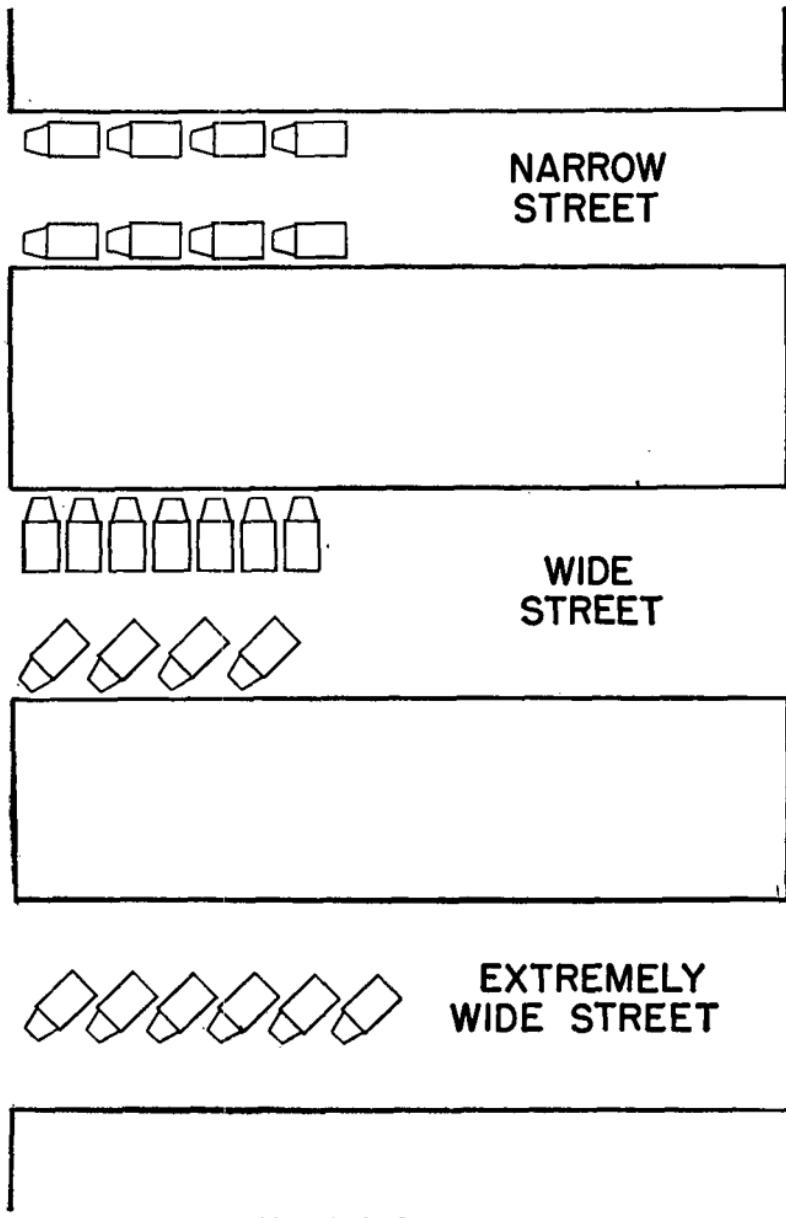


Figure 44. Methods of street parking.

such obstruction of the "freeway." When street parking cannot be avoided, one of the following methods may be used:

a. **Parallel parking.** This method uses the maximum curb space per vehicle and makes the smallest reduction in street capacity for vehicular traffic. (See fig. 44.)

b. **Angle parking.** This method accommodates more vehicles per unit of curb space than does parallel parking and has the advantage of ease with which a vehicle may be parked. This advantage is counteracted by the hazard of returning to the traffic stream. The exact angle of parking to be used depends on the width of the street and the number of parking spaces required.

c. **Center-street parking.** Streets of extreme width, unobstructed by center parkways or curbings, provide for ease of parking and access to and egress from the traffic stream.

71. PARKING LOTS. Space for off-street parking is usually available on posts, camps, stations, and in some city areas. Reasonable proximity to the headquarters or other activity is desirable. Any size or shape lot or open area may be utilized. Various possible arrangements of vehicles are shown in figure 45. The method of parking to be used should be marked clearly and strictly enforced. A separate entrance and exit should be used whenever possible. When a combined entrance and exit is used, it should be at least 26 feet in width.

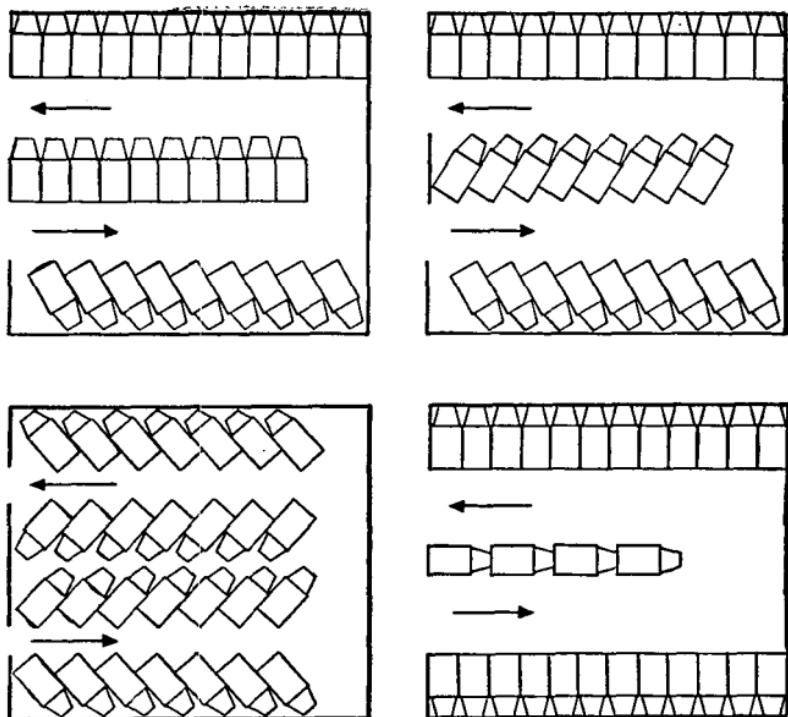


Figure 45. Four arrangements for rectangular parking lots.

72. PARKING UNDER FIELD CONDITIONS.

a. When at all possible, motor vehicles should never be halted on a roadway. If road conditions make it impossible for the vehicle to clear the roadway, steps should be taken to warn approaching vehicles of the block, and to remove the stopped or stalled vehicle from the road.

b. At places where vehicles congregate, parking areas should be established. Conservation of space is rarely necessary under field conditions, but planned organization avoids confusion. The particular situation dictates the need for fencing and guards. (See par. 100.)

73. TRAFFIC PARKS. **a.** A traffic park is an area where vehicles can be halted and dispersed off the road. A loop or side road, or the side streets of a town, can often be used if available, but generally an open field will suffice. The choice of a park or dispersal area depends largely on what is available, the prevailing terrain, enemy action expected, and other tactical considerations. The park surface must be firm and defiladed from enemy observation or fire.

b. Traffic parks are set up in order to avoid congestion at entrances to one-way defiles or other critical areas. Military police operating traffic parks should be in constant communication (telephone, radio, or visual) with the control personnel at the defile to coordinate the flow of traffic. Vehicles should be dispatched from the traffic park on instruction from the military police controlling the defile in sufficient time to reach the entrance by the time it is clear.

Section VII. CIVILIAN TRAFFIC

74. GENERAL. Successful military traffic control depends on the effective regulation of civilian as well as military traffic. The character of the road net involved and the urgency of traffic operations determine the degree of control to be effected. This control may vary from the minimum disruption of normal civilian traffic to the barring of all such traffic from the road net.

75. IN COMBAT ZONE. **a.** Military police should know the normal characteristics of civilian traffic in

the area of operations, the traffic regulations to which the civilians are accustomed, and any special emergency control plans which local civil authorities may have prepared for execution in emergencies. All available publicity channels should be utilized to inform indigenous civilians of the orders, restrictions, and any other pertinent information concerning the use of roads. If the situation permits, the information is disseminated through civilian channels, but when the tactical situation requires immediate drastic changes in or curtailments of the use of roads, the civilians are informed of the changes as soon as practicable.

b. For normal operations, the combat zone may be divided into three zones in which restrictions on civilian traffic take the following forms:

- (1) From the army rear boundary to a line designated as a "no passage" line—unrestricted civilian traffic on all except specifically designated routes and bridges. The "no passage" line may well be coincident with the corps rear boundary. All traffic is checked at this line.
- (2) From corps rear to division rear boundaries—only highly essential civilian traffic by special pass.
- (3) From division rear to line of enemy contact—no civilian traffic.

76. IN COMMUNICATIONS ZONE. The commander of a section of the communications zone normally prescribes the policy for control of civilian traffic in his section. His policy may vary from no interference with normal civilian traffic to severe

restrictions on traffic movement. When the tactical situation permits, the cooperation of civilian traffic authorities may be enlisted in the formulation of traffic regulations. It is often desirable to leave the control of civilian traffic in towns and cities to local civil authorities operating under the general supervision of military police. As a general rule, however, traffic on the main supply route or any other heavily traveled military route will be controlled by military police, who may be augmented by civilian police.

77. IN ZONE OF INTERIOR. In the zone of interior, military and civilian traffic must be coordinated. Such coordination for convoy movements is accomplished through close liaison between the transportation officer and civil authorities. The provost marshal and the civil police authorities coordinate police activities and traffic movement control. Local arrangements pertaining to traffic control or circulation may be worked out by the agencies immediately concerned, but the transportation officer will coordinate requests made to civilian authorities. In planning motor movements within the continental limits of the United States, civilian assistance will be obtained from the principal highway traffic agency in each State concerned. So far as possible, civilian traffic that is barred from roads because of military operations should be afforded the best possible alternate routes. Such restrictions and alternate routes should be publicized. (See AR 700-105.)

78. REFUGEES AND DISPLACED PERSONS.

- Advance planning for handling and transporting

refugees and for the control of their movement in the combat zone is necessary to minimize disruption of military traffic. A method of control that is generally practicable is the prohibition of refugee traffic on specific roadways. Military police must be prepared to enforce orders for the movement of refugees. Patrols accompanied by trucks collect and evacuate refugees and clear the roads. If the tactical situation permits, the enemy may assemble large groups of refugees and forcefully send them through the lines at critical points to disrupt military traffic. Under such circumstances, direct adjustive action must be taken by the military police.

b. Normally patrols operate on the main roads and reroute refugees to the secondary roads, where collecting points are established. From the collecting points, the refugees are evacuated to refugee camps.

c. Because of the undisciplined nature of refugee traffic and the mixture of pedestrians, animals, and various types of vehicles which comprise it, extraordinary control measures are often required. Bottlenecks must be located as accurately as possible, and adequate personnel must be assigned to such points. Mobile public address equipment should be provided for the issuance of orders and the dissemination of information. Bulldozers and wreckers should be made available to clear routes for important military traffic when necessary.

d. Traffic control personnel must be firm in handling refugee traffic, but at the same time they must seek to minimize fear and panic.

Section VIII. AMPHIBIOUS OPERATIONS

79. GENERAL. Military police perform missions in amphibious warfare identical with those of land warfare as well as supplementary tasks related to operations in the beach area. Their operations are closely coordinated with the operations of the landing force and shore party.

80. EMBARKATION. **a. General.** In large scale embarkation, preparatory to amphibious operations, there are many detailed traffic movements which must be accomplished successfully to insure loading of ships with the least degree of confusion. Troops must be moved into assembly areas, into marshalling areas, and into embarking areas. Supplies must be transported both to troops and to ships. Also, the normal administrative traffic incident to the embarkation necessitates a high degree of traffic control. The G-4 coordinates movement of all units and supplies incident to the operation. The execution of the traffic control plan, which is prepared for operation by the provost marshal, includes enforcement of movement orders, traffic point control, escorting, giving information, and all other duties which are the normal responsibility of the military police.

b. Assembly areas (or staging areas). Assembly or staging areas are usually established near the general area of embarkation. In these areas, units make all the preparation for embarkation and the amphibious operation. From these assembly areas, the units may move into marshalling areas or direct to embarkation areas as deemed necessary to the operation.

c. Marshalling areas. Marshalling areas generally are established through which all unit convoys move enroute to the embarkation area. Units are moved to the marshalling areas on rigid schedules issued by traffic headquarters. Rigid control of movement is provided by military police who normally escort the convoys. On arrival at the marshalling area, units are normally regrouped into boatload units. The movement of units after regrouping is by convoy, which leaves the marshalling area for embarkation points on schedules transmitted from headquarters and controlled by traffic regulation points. Military police escort assures the orderly movement of the boatload units from the marshalling areas to the embarkation point. In addition, military police at critical points along the roads to the embarkation point prevent interference by casual or civilian traffic. Traffic priorities are necessary in such movements and are rigidly enforced by military police to assure the least amount of disruption to other movements in the area.

d. Embarkation area. Upon arrival in the embarkation area, each boatload unit is assigned space in a holding area so that its personnel and matériel to be loaded on a specific ship will be separated from personnel and matériel to be loaded on other ships. Boatload units leave the holding areas and move to *loading points* (docks, jettys, hards, etc.) on call from the unit handling the actual loading operations. Close liaison must be maintained by boatload commanders with the officer in charge of loading. The military police provide escorts where necessary. Traffic military police also make periodic checks of the marshalling

and embarkation areas for stragglers, AWOL's, and unauthorized persons.

81. ASSAULT OPERATIONS. **a.** Military police should land early in the assault phase of an amphibious operation. The number of military police employed in a special task organization, formed for the purpose of facilitating the landing and movement of troops off the beach or in the shore party organized for control of the beach, is entirely dependent upon the tactical demand for such supporting troops. Early in the assault, military police traffic duties are extremely limited and are usually confined to directing assault vehicles and personnel to beach exit roads and to holding prisoners of war. As the shore party is established and the beach is built up, military police traffic duties are extended to directing vehicles to beach exit roads and dewaterproofing areas and to control of the beach road net. These duties are gradually extended to the implementation of the traffic circulation plan, which includes all the functions that would normally be performed by combat military police.

b. Military police should be landed in echelons beginning with the earliest assault echelon, which should include a military police officer whose principal duty should be to make a reconnaissance to assure that the circulation plan drawn prior to the landing can be implemented on the ground. In conjunction with the shore party commander, he should effect the necessary changes. He also will direct and coordinate all initial military police operations on the beach with the assault echelon and the shore party. The succeeding echelons of military police will report to the shore

party commander immediately after landing for any special instructions that may be necessary, and will locate and place their organic equipment in operation as soon as practical.

82. TRAFFIC CONTROL IN BEACHHEAD OPERATIONS. **a.** Efficient traffic control is vital on invasion beachheads to insure a constant flow of troops and supplies across the beach. Beachhead traffic control is the responsibility of the senior commander ashore. In each zone of action, as combat elements progress inland, military police of higher echelons of command relieve military police of the assault echelons of responsibility for rear areas. Importance of effective beachhead traffic control and circulation is enhanced in amphibious operations, which are normally characterized by—

- (1) Landing where no road systems exist or where existing roads are parallel to the beach.
- (2) Lack of ground reconnaissance prior to landing.
- (3) The peculiar status of the beach, which is the terminus of land and sea-borne traffic and, concurrently, the center of the supply and transportation system.

b. The landing force commander prescribes in administrative plans all necessary instructions on traffic control, manner of its initiation in the early part of the landing, the responsibility of its enforcement, main supply routes, road development, bridge capacities, minimum road standards, and black-out and speed restrictions. After receiving the administrative orders, military police commanders thoroughly orient all their

personnel as to the operation and as to their place in the operation. Each man is thoroughly briefed as to his mission and duty in the over-all operation. After the men have been posted, they are informed at all times of the various changes in the tactical or administration situation. Close liaison is maintained at all times with other elements of the landing or shore party.

83. BEACHHEAD INFORMATION POSTS. In order to keep congestion on the beach to a minimum, traffic information posts are established at the main beach exits and all traffic is directed to them for information. A continuous effort by military police unit commanders is necessary to procure for these posts the most up-to-date information. Often special patrols will be required to obtain information by checking the location of supply dumps, command posts, and other installations, and the condition of the roads and bridges. Rapid transmission of information will especially be necessary when the tactical situation is undergoing rapid changes. Regular patrols also gather information on conditions affecting traffic operations, and report to the commanders.

84. BEACH SIGNS. Signs are utilized to the fullest extent possible in beachhead operations. Although sign posting is normally the responsibility of the engineers, military police procure and post necessary temporary signs in beachhead operations.

85. SUPERVISION OF BEACHHEAD TRAFFIC PERSONNEL. a. More supervision of traffic



Figure 46. Efficient traffic control is vital on invasion beachheads.

personnel is required in beachhead operations than in ordinary operations. Many emergencies arise which require coordinated action. In addition, the mental strain caused by exposure to enemy shelling, bombing, and strafing necessitates frequent relief of military police.

b. As a beachhead expands, the traffic control problem becomes the same in principle as any other combat traffic problem. When the army, or advance section of the communications zone, takes over control of the beach area, traffic-control responsibilities become the function of the respective provost marshal. (See fig. 46.)

Section IX. EMERGENCY ADJUSTMENTS

86. GENERAL. Traffic circulation and control plans may be disrupted suddenly by roads being rendered impassable by heavy traffic, bad weather, smoke, or enemy action, and by unanticipated movements required by changes in the tactical situation. Rapid, effective, emergency adjustments must be made to meet such new conditions and to assure mobility and flexibility. The responsibility of military police cannot be confined to the implementation of fixed circulation and control plans, but must include action in any emergency.

87. REQUIREMENTS. In an emergency, military police must be able to grasp the problem quickly, know the proper remedy, and be able to apply it correctly. The following requirements are essential in preparing for emergency adjustments:



Figure 47. Military policeman in invasion operation directing traffic from a sandbag enclosure.

- a. Traffic circulation and control plans must be flexible. Possible emergencies should be anticipated during the planning phase, and tentative alternate plans prepared to meet such emergencies.
- b. Trained personnel must be available. In addition to men required for duty, a reserve must be maintained to handle emergency situations. The reserve may consist of personnel held specifically to handle emergencies, or may consist of men from less critical locations.
- c. Adequate supervision must be provided.
- d. Adequate transportation must be available to move reserve personnel to critical locations.
- e. Information must be available to all personnel. Original circulation and control plans, tentative alternate plans, and information regarding emergencies or changes in the control plan must reach all concerned as rapidly as possible. Men controlling traffic must transmit to their superiors information on emergencies occurring in their areas, local emergency adjustments made, and engineer repair work required.
- f. Adequate communication facilities, including telephone or radios, and messengers must be available to transmit necessary information and to coordinate the efforts of personnel.

88. PROCEDURE FOR EMERGENCY ADJUSTMENTS.

- a. Emergency adjustments made immediately at the scene are often sufficient. At times, however, supplementary adjustments by G-4 or the transportation section may be necessary.

- b. When tactical plans are changed, transportation section or G-4 immediately makes necessary changes

in the current control system. When necessary, if time is pressing, traffic control personnel may be instructed by wire, radio, or messenger to make local adjustments pending issue of orders. Road patrols may be used to transmit information and provide emergency adjustments.

c. To be able to act quickly and properly in emergencies, all military police must be familiar with current traffic conditions in their area. Unanticipated disruption of traffic circulation, such as the sudden destruction of a bridge or the blocking of a road (see fig. 48), usually comes first to the attention of military police on patrol or point duty. Their immediate responsibilities are to determine the extent of the damage or obstruction, take appropriate action to prevent local congestion, and report the disruption of traffic to their headquarters and other patrols and posts. Military police headquarters reports to successive traffic control echelons. Each echelon acts to meet the emergency pending receipt of instructions from higher authority.

d. Traffic control personnel at the scene of a traffic block seeks to avoid traffic congestion and stagnation. The specific action taken varies with the circumstances. If, for example, a bridge has been destroyed and can not be replaced for several hours, traffic is rerouted. If a road block can be eliminated quickly, traffic is held up temporarily and not rerouted. In deciding to reroute traffic, military police must consider consequent traffic congestion at other locations. Occasionally tactical requirements may demand that traffic be kept moving in the vicinity of the trouble, even at the risk of congestion elsewhere.



Figure 48. Military police must at times decide whether to halt traffic at a road block or reroute it.

e. Where tactical considerations predominate, unit and column commanders determine action to be taken in critical situations. Traffic-control personnel advises on the probable effect of alternate courses of action on the general traffic circulation plan and gives information on available detours.

f. To expedite restoration of traffic circulation following its disruption by a road traffic block, military police must establish close liaison with road maintenance engineers. Military police furnish the engineers with information as to the nature and extent of engineer work required in order to facilitate its prompt and effective execution. Such information also enables G-4 or the transportation officer to estimate more accurately the time that traffic will be disrupted.

89. PREVENTION OF ENEMY INTERFERENCE. a. As every feasible means of enemy interference with traffic-control operations must be expected in a theater of operations, precaution must be taken against such interference. Some examples of enemy interference are the dissemination of false orders, posting of men disguised as friendly traffic-control personnel, removal of road signs or replacement with misleading signs, and capture or killing of traffic-control personnel. When supervision is thorough, the opportunity of interference by the enemy is materially decreased.

b. The following are measures that may be employed to prevent enemy interference with traffic-control operations:

(1) All orders, instructions, and information cir-

culated within the traffic-control organization are authenticated by use of a code word.

- (2) Personnel equipped with telephone or radio communication reports at prearranged intervals. Failure to report is investigated immediately.
- (3) Frequent checks and inspections are made to determine that the military police are at their assigned posts.
- (4) Patrols and military police on key control points are provided with weapons for effective defense against enemy raiding parties. Men are posted in pairs or groups so that one man may cover the other, take his place if he becomes a casualty, or get away and report to higher authority if strong enemy interference is encountered.
- (5) Military police, particularly patrols, are instructed to investigate and report any suspicious circumstances.
- (6) The greatest possible uniformity in the execution of control technique is developed so that any suspicious variation in method is readily apparent to unit commanders.

Section X. ENFORCEMENT

90. GENERAL. a. The efficiency of traffic circulation, as shown by the elimination of accidents, interference, and congestion, depends upon the degree to which all personnel of the Armed Forces comply with traffic laws, regulations, and directions. Compliance with laws

and regulations is gained to a large degree by driver selection and training and by proper orientation as to the reasons for the traffic regulations. However, selection, orientation, and training *must* be supplemented by enforcement. The mission of military police in traffic law enforcement is to encourage voluntary compliance by all motor vehicle operators and pedestrians with traffic laws. Through frequent apprehension of observed violators, and by citing them for proper punishment, military police enforce compliance by those individuals who are not deterred from dangerous or illegal conduct by other factors. As in civilian traffic control, *prevention* is the essence of good enforcement.

b. The authority of military police enforcing traffic regulations emanates from the commanding general or commanding officer of the area in which they operate. (See par. 10 and FM 19-5.)

91. ENFORCEMENT POLICIES. **a.** The intent of traffic orders and regulations governing traffic movement is to prevent acts which impair efficient traffic movement. Arbitrary regulations and standards of conduct cannot, however, provide for individual human differences, abilities, and judgments, nor for changing road and weather conditions. Variations in the enforcement of traffic laws and regulations are desirable in the interest of reasonableness. The enforcement policy which establishes such variations must strike a proper balance between reasonableness and effectiveness and must be sound in principle and uniform in application. It must be established by the commander of the highest echelon of command of the area concerned, and must be based on the recommendation of the

provost marshal. All enforcement policies must take into consideration the fact that motor vehicle operators tend to observe the enforced rather than the published law.

b. Arrests for every violation of the "letter of the law" generally are not warranted or desirable. Every effort should be made to expedite safe movement with a maximum of assistance and a minimum of enforcement necessary to gain compliance. Undue leniency by military police, or lack of uniformity in the interpretation of traffic laws by commands, is not desirable as it weakens the over-all enforcement program. However, enforcement action should not be restricted only to cases involving intentional or extremely hazardous violations.

c. Warnings are a valuable and important part of the enforcement program. They may be verbal or written, and serve as a useful means in the educational activity which should always precede the enforcement of new regulations. Warnings should not be used to the exclusion of more severe action when such is warranted by the violation committed. Physical arrests and written violation reports must be used judiciously.

d. Enforcement policies established for military police with tactical units must provide for strict enforcement of tactical orders and expedients, such as black-out and dim-out regulations, priorities and schedules, dismount and light lines, orders concerning civilian traffic in the combat zone, and refugee movement.

92. PREVENTIVE ENFORCEMENT. Preventive enforcement is based upon the presence of military

police on roads, highways, and at points where violations, congestion, and accidents occur. The military policeman's presence and supervisory activities tend to prevent the commission of unlawful acts such as double banking, improper parking, driving in the wrong direction on one-way roads, and driving at excessive speeds. This type of enforcement is given primary consideration, particularly where free movement is essential. It offers a minimum of interference with operations and requires a minimum of effort by the military police. Preventive enforcement should not be considered as completely divorced from disciplinary enforcement. While on traffic patrol, a military policeman should make his presence known to road users; at the same time, he should stop, give warnings or summons, and take offenders into custody when the nature of the violation necessitates such action.

93. DISCIPLINARY ENFORCEMENT. Disciplinary enforcement consists principally of issuing written warnings or initiating violation reports when drivers disobey traffic regulations and orders. It may also include physical arrest when the violation warrants such action. Its purpose is to deter possible violators and thereby prevent accidents and congestion. There is a high and constant correlation between the frequency and severity of violations and the impairment of traffic movement, and loss in terms of property damage, personal injury, and deaths due to motor vehicle accidents. Disciplinary enforcement is necessary as a supplement to preventive enforcement, driver training, and other measures.

94. SELECTIVE ENFORCEMENT. **a.** When the enforcement effort is directed at specific violations, times, and locations in proportion to their significance in accident experience and general impairment of efficient movement of traffic, it becomes selective enforcement. This type of enforcement is necessary because of the always limited military police manpower which makes it impracticable to give equal and adequate attention to all parts of the road net at all times. Selective enforcement assignments are made by determining which violations most endanger traffic efficiency, and the times and places at which they most frequently occur. Selective enforcement is a continuous process, not a series of campaigns or "*drives*."

b. In tactical situations, the posting of military police at critical points is a form of selective enforcement.

c. In the occupation of a liberated country or on a post, camp, or station within the zone of interior, the records of accidents and violations and studies of traffic congestion will show which violations are most common and the approximate locations where enforcement is most needed. Traffic studies serve as a basis for a fairly accurate estimate of the times at which most enforcement should be applied.

95. UNDESIRABLE ENFORCEMENT PRACTICES. There are certain highly undesirable practices in enforcement which are not to be employed by military police. Among these practices are arrest quotas, sporadic campaigns, and concentration on easy arrests.

a. Military police are never assigned arrest quotas or given any concept of an amount of performance in terms of violators apprehended as being desirable.

b. Sporadic campaigns or alternating periods of inactivity and enforcement drives are ineffective and unwarranted. Such campaigns must not be confused with selective enforcement.

c. Concentration on easy arrests or concentration on certain types of relatively minor and nonhazardous violations should be avoided as it is generally ineffective in the prevention of accidents or acts which tend to prevent the efficient flow of traffic.

96. ENFORCEMENT TECHNIQUE. **a.** The techniques employed in traffic enforcement must be based upon a full consideration of the mission of enforcement, the efficient use of personnel and facilities, and the safety of personnel. Military police must have a thorough knowledge of the traffic problem, its causes, and remedial measures before they are schooled to acquire the knowledge and skills essential to proper and uniform performance of traffic duty. They must have a realization of the role and proper attitude of military police in traffic control and should have an active interest in effective performance of traffic duty. The effectiveness of their enforcement action will be based generally on the techniques they employ in supervising traffic, patrolling, detecting, apprehending, and handling violators.

b. Military police supervising traffic must be alert at all times and give signals in a clear and decisive manner in order to preclude misunderstanding. Traffic patrols will serve as models of vehicle operating efficiency and road courtesy. When speed becomes a decisive factor in the accomplishment of a traffic mission, then only should it be resorted to, but not to the

exclusion of all regard for safety of individuals in the patrol vehicle or other users of the roads. The escorting of ambulances and fire trucks and the reckless pursuit of traffic violators are not to be construed as situations where speed and other regulations may be disregarded.

c. Speed estimation by observation is subject to error and is seldom employed. The pursuit and pacing of a violator is generally satisfactory (see par. 54). It is often feasible to supplement the pacing technique, which can be employed at all times and places with the measured-distance checking method which is the least hazardous and most accurate of speed checking methods. (See app. III, par. 4e.)

d. The arresting of violators of the law is a military police function, but a military policeman must remember that a violation is an act against the law; it does not personally insult the military policeman. In approaching an operator who has violated the law, the military policeman must be civil, orderly, courteous, and sufficiently disciplined to control his own temper and exercise patience and discretion. He must inform the operator of the violation committed and, when necessary, of the authority under which he is acting. He must be fair and impartial and must remember that his job is to secure facts, not to try a case. By conducting himself properly, he wins respect for himself and his corps, and makes enforcement easier through winning voluntary compliance. (See par. 53.)

97. VIOLATION REPORTS. a. Traffic violations which are serious enough to warrant disciplinary action are reported on prescribed forms. (For details, see

TM 19-250.) A similar report is prepared when physical arrest is made for a traffic violation.

b. Drivers who commit violations are normally stopped and informed of the violation they have committed, and a report is prepared at that time. Where this is impracticable, or where the military policeman is unable to leave his post, a report should be made of the organization and number of the vehicle, its direction of travel and load, the time and location, and any other pertinent information.

c. In areas where military jurisdiction over civilians is *not* in effect, military police normally use instructive warnings and preventive enforcement in dealing with civilian traffic. Serious violations are reported through the provost marshal to appropriate civil authorities. In the zone of interior, civil authorities work with military police in controlling traffic during troop movements. (For a discussion of military and civil jurisdiction, see FM 19-5.)

d. In situations where military jurisdiction prevails over the civil populace, maximum use should be made of the available civil police to handle civilian traffic. When the military police give warnings, violation reports, or make arrests of civilian offenders, the case is disposed of in the manner prescribed by current directives. Close liaison and coordination must be maintained with the civil police.

Section XI. STOLEN VEHICLES

98. GENERAL. The loss of vehicles through theft is a problem that confronts all commanders, both in the zone of interior and in theaters of operations.

Every possible measure to prevent theft should be employed. Punitive action against offenders should be swift and sure. The provost marshal, through proper action, can greatly lessen the inconvenience caused the command by the loss of vehicles.

99. PREVENTIVE MEASURES. **a. Registration.**

A complete register of vehicles by type, motor, and USA number should be maintained at all command levels and a copy furnished to the provost marshal. Periodic physical checks should be made and overages or shortages reported through command channels and to the provost marshal.

b. Driver responsibility. The driver is responsible for the security of his vehicle at all times except when it is stored in a guarded parking area. If the vehicle is so equipped, keys should be removed from the switch and doors should be locked. The trip ticket should not be left in an unattended vehicle.

c. Security expedients. The use of a lock and chain, immobilization by removing the rotor, and similar practices are not to be considered acceptable measures for the security of vehicles except in emergencies where other methods cannot be used.

100. PARKING LOTS. At military installations in the zone of interior, transient parking lots will normally provide sufficient security. Motor pools and other activities where vehicles are left overnight should be fenced and the gates locked during the hours of darkness. Outside the continental limits of the United States, it is frequently necessary to guard all storage and parking areas.

101. RECOVERY OF STOLEN VEHICLES.

a. In the zone of interior. The expeditious recovery of stolen vehicles demands close cooperation between organization concerned and the military police. Military police make frequent spot checks of trip tickets within a post, camp, or station and scrutinize closely all off-post trip tickets at the gates. When conditions warrant, military police also check driver identification and trip tickets on the public highways.

b. In a theater of operations. Methods of checking vehicles used in the zone of interior can be modified and adapted for use in overseas theaters. In addition, extensive use of check points, which may be shifted frequently, is very effective in controlling vehicular loss. In an occupied area, where vehicular theft may be organized by groups of thieves, the provost marshal should coordinate his operations closely with the civilian police.

Section XII. ACCIDENTS

102. TRAFFIC ACCIDENTS IN COMBAT AREAS. Traffic accidents occurring in division or corps combat areas may be regarded as combat casualties rather than accidents in the ordinary sense, because urgency of the tactical situation frequency prevents full investigation and report. Military police at the scene of the accident will—

a. Render first aid and assist with the evacuation of the injured.

b. Aid in clearing obstructions and regulate traffic.

c. Prepare brief reports giving location, date, time, unit designation, personnel, and equipment involved.

A complete report describes briefly what occurred, extent of injury to personnel, damage to property, and action taken by the column and the column commander. Statements as to accident causes may be limited to information placing responsibility on offenders, the necessity for road improvement, or recommendations for use of traffic control personnel or control devices, but all available information should be furnished unit commanders responsible for preparation of reports required by regulation.

103. TRAFFIC ACCIDENTS IN OTHER AREAS. Traffic accidents occurring outside combat areas should be investigated thoroughly to establish a basis for the settlement of claims and to assist in the prevention of other similar accidents through the elimination or control of the causes. Each accident is a source of information from which the following may be determined:

- a. Placement of new control devices or changes in existing devices.
- b. Changes in regulations and orders, and/or in their enforcement.
- c. Changes in traffic control plans and techniques.
- d. Road improvements.
- e. March technique and discipline improvements.
- f. Driver failures and/or unsafe vehicular mechanical conditions.
- g. Driver selection and training improvements.

104. ACTION IN EVENT OF ACCIDENTS.

a. Procedure when informed of a road accident depends upon its apparent seriousness, the relative importance

of restoring flow of traffic, and the extent of responsibility for making a thorough investigation. Procedure will differ also when civilians or civilian vehicles are involved or when civilian police or column personnel assume responsibility for the case. Normally, column personnel should assume jurisdiction over accidents involving vehicles in the column, but military police should assist or accept jurisdiction if column personnel are not equipped to do so. In the zone of interior when both civilian and military police are present, joint jurisdiction is usually assumed.

b. Detailed procedure for thorough handling and investigation of traffic accidents under nontactical conditions is as follows:

- (1) *Proceed to scene quickly but safely.* Prompt arrival is essential so that injured persons may be given first aid, other accidents or serious traffic congestion prevented, and facts of the accident and statements of witnesses obtained. The military police vehicle should be parked at the scene of the accident in such a way that it will not constitute a traffic hazard, but may, when desirable, be stationed as a road or lane "block." At night, under normal conditions, the vehicle should be parked so that the headlights illuminate the entire scene. Lighting helps the military police in care of the injured, in preparing reports, and serves as a warning to approaching vehicles.
- (2) *Care for injured and protect property.* When necessary, military police render first aid and secure medical assistance. If the body of an

injured person blocks traffic, vehicles should be rerouted. However, if rerouting is impracticable and if continued movement of traffic is of primary importance, the injured person should be moved off the road. Suggestions and complaints from bystanders should normally be ignored. Military police should take possession of and protect property of injured persons. An itemized list, in triplicate, of all property should be signed by the military policeman, who will include his unit designation and location. His signature will be witnessed. The original and duplicate inventory is kept with the property when turned in to military police headquarters; the triplicate copy is retained by the military policeman. The original inventory accompanies property of civilians when such property is turned over to the civilian police; the property is receipted for on the duplicate copy which is then filed with other records of the case at military police headquarters. When other property is reclaimed at military police headquarters, the claimant receipts for such property on the original inventory which is then filed with the records of the accident.

(3) *Established traffic control in vicinity.* Traffic hazards should be reduced by posting signs, flags, or flares, or placing control personnel on approaches to the scene of the accident. Steps are taken to eliminate danger from fire, explosives, or broken power lines. Untrained military personnel and civilians should

not be used in traffic control at the scene of an accident if trained personnel are available. If the use of untrained military personnel or civilians cannot be avoided, selected individuals should be secured and instructed in traffic directing methods. Persons not assisting, or otherwise essential, should be kept off the road. Although the area should be cleared as much as possible to permit traffic movement, physical evidence should not be disturbed until facts are gathered and measurements and photographs taken. However, if traffic cannot be resumed and its movement is more important than detailed physical evidence, the scene is cleared before the investigation begins. In any event, normal movement of traffic should be restored as soon as possible.

- (4) *Secure accident investigation facts.* In co-operation with appropriate unit commanders, safety officers, and others, all facts about the accident should be obtained, using Standard Forms 91 and 91A as a guide for this purpose. These facts should include the lay-out of the roadway, road widths, location of fixed objects, traffic-control devices, view obstructions, and type and condition of road surface. The weather conditions must be recorded. The time of day and type and approximate volume of traffic passing the place of occurrence should be indicated. Courses of the vehicles, both before and after the collision, and skid marks made by the vehicles should be noted.

Accurate measurements of distance should be made and the point of impact on the roadway carefully determined. Vehicles should be checked for the approximate extent of damage and for defects existing before the collision. Notes are made of all facts obtained, and photographs are taken when practicable.

(5) *Secure statements.* Injured persons who must be removed from the scene should be questioned at the scene, if possible, or at the hospital as soon as practicable. Witnesses, drivers, passengers, and pedestrians involved in the accident should be questioned individually, each out of hearing of others who have been or will be questioned, at the scene by investigating military policemen. All such persons should be encouraged to make and sign a written statement. Full identification, place of employment, street address, and telephone number should be shown at the beginning of each statement to insure that the individual may be located if necessary. The statement should include all facts pertinent to what the individual saw and related in connection with the specific accident. A careful check of each statement made against those of others will disclose discrepancies or omissions in the testimony. These discrepancies should be clarified at the scene of the accident if practicable. Statements should, as nearly as possible, be the exact words of the person giving the statement. The statements should

be held with the other records of the accident.

(6) *Driver's accident report.* Military police remind drivers of military vehicles of the requirement that they must fill out the accident report form (Standard Form 91—Operator's Report of Motor Vehicle Accident) at the scene, and give the driver necessary aid in completing the form. In the event the driver is rendered incapable of executing the report, it is the duty of the assistant driver, if there is one, to make out the report. If neither is able, the senior passenger of the vehicle will complete the accident report. Only when the driver and passengers of the military vehicle are unable to complete the driver's accident report will the investigating military policeman execute and transmit the report, as soon as practicable, to the driver's commanding officer.

(7) *Clear scene and complete report.* Unless vehicles are removed immediately, guards or flares are posted to prevent additional accidents. Units normally remove their own vehicles, but if this is impractical, the military police arrange for the removal. Civilians are normally required to have their own vehicles removed. Roads are cleared of debris. Physical arrests are made of military personnel when necessary, or violation reports are prepared. Military policemen, in preparing an accident report, should keep in mind the importance of providing accurate information for the investigating officer. (See AR 700-105.)

(3) *Recheck of report.* The military policeman should carefully check and recheck the information recorded on the accident report to insure that there are no omissions. Before leaving the scene, he should ask himself the following questions:

- (a) Does the diagram of the accident give a clear view of what happened? Does it include street dimensions?
- (b) Is the presence or absence of obstructions noted?
- (c) Are the location and description of traffic signs and devices complete?
- (d) Have statements been taken from all witnesses and have the addresses of all witnesses been secured?
- (e) If there were injured, has a doctor's diagnosis been obtained? Is the doctor's name, address, and telephone number included in the report?

On completion of the investigation, all reports, statements, diagrams, and pictures should be securely fastened together and turned in to the office of the provost marshal.

105. HIT-AND-RUN ACCIDENTS. a. Military police must make certain from the facts presented at the scene whether an accident naturally is a "hit-and-run" case before reporting it as such. Where it has been definitely established that an accident is in fact "hit-and-run," details of the accident should be communicated as soon as possible to all law enforcement

agencies in the area so that a search for the offender may be made immediately.

b. All possible information bearing on the accident should be obtained at the scene by observation, questioning, and taking statements of witnesses. Damage done by the "hit-and-run" vehicle will normally indicate the probable damage to it, and the kind of foreign matter with which, unless removed, it will be marked. Parts broken off the "hit-and-run" vehicle found at the scene will serve as convincing evidence of identity when the vehicle is found.

c. A search for the vehicle involved should be made by the military police shortly after their arrival at the scene. The investigating military policeman should canvass the possible or alleged routes of the vehicle before and after the accident for additional witnesses and information. Route men, such as bread, pastry, and milk salesmen, and bus and cab drivers, who are on that route daily may prove to be excellent witnesses and may provide enough information to aid in the location of the vehicle and the apprehension of the driver. If the "hit-and-run" vehicle cannot be found through normal investigation, the investigating policeman or policemen should return to the scene each day at the same hour to talk to route men passing the point. If the case has not been solved in 1 week, a military policeman may be posted at the scene during the hour the accident occurred on the same day of the month for a period of at least 3 months in an effort to locate additional witnesses.

d. Following investigation at the scene, general publicity is given the accident which may result in additional information from witnesses who may be able

to give information as to the identity of the driver. In seeking the vehicle, a careful check should be made of military motor pools and civilian garages in conjunction with civil authorities.

e. When found, the vehicle should be examined carefully to identify it positively. Care should be taken to determine who was driving it at the time of the accident. This is done in the zone of interior through command channels in the case of a military vehicle and through civil authorities in civilian cases.

f. Criminal investigation laboratories may be used in the identification of metals, rubber, glass, fabrics, paint, hair, and other substances in "hit-and-run" accidents.

106. STUDY OF ACCIDENT FACTS AND RECORDS. a. Thorough periodic studies should be made of the motor-vehicle accident facts and records of all subordinate units comprising a post, camp, or station complement, and of field units under static field conditions. Such a study should be made when composite records maintained by the provost marshal, safety officer, or unit commander show unfavorable comparison with like stations or units operating under similar conditions.

b. The purpose of a study of accidents and accident records is to assure that, from reports prepared pursuant to AR 700-105, SR 385-10-41, and other existing directives, appropriate effort is expended in the control or elimination of prevalent accident causes.

c. Accident location maps are used to indicate the need for better and more selective enforcement or the need for physical changes to eliminate hazards. Such

maps, mounted on soft wood or some form of soft composition material, are used to locate high accident frequency locations in the area. Variously shaped or colored pins are used to code on the maps the types of accidents.

d. An accident location file is used as a cross-reference and to supplement data not readily shown on the accident location map. A record of traffic accidents is filed alphabetically by street and intersection.

e. A driver accident and violation file is maintained to identify those drivers who are constantly having accidents or committing traffic violations and should constitute the basis of discussing with unit commanders the accident experience of their drivers.

Section XIII. AIRBORNE OPERATIONS

107. GENERAL. In large-scale airborne operations, the military police will control traffic in and around assembly areas and departure air fields. They also will control traffic at arrival air fields and, when necessary, may be used at airheads where troops are parachuted or transported by glider aircraft. The techniques for the control of traffic, as set forth in this manual, are generally applicable to air-borne operations with necessary modifications.

Section XIV. TRAFFIC CONTROL IN ARCTIC OPERATIONS

108. ARCTIC OPERATIONS. a. **General.** The principles and techniques discussed in the earlier chapters will, with implementation, apply to Arctic opera-

tions. The changes brought about by Arctic summer and winter seasons will demand a high spirit of resourcefulness on the part of commander and military police to adjust their operations to the terrain and weather difficulties encountered.

b. Motor movements in Arctic operations. Motor movements of troops in snow and extreme cold require road clearance, winterization of vehicles, cover and insulation for truck bodies, use of lugs and chains, provisions for tactical security, and frequent halts of short duration.

c. Rates of movement. Rates of movement, except for troops mounted on skis, are much slower in snow than in areas clear of snow. In unbroken snow, trails must be broken or roads opened. Passing zones, parking areas on shoulders for stalled vehicles, and turn-arounds must be cleared when roads are opened.

d. Route planning. Routes should be planned to afford the maximum reasonable speed between bivouac areas. Routes should also be planned to avoid as much trail breaking as possible, and to avoid defiles and steep slopes.

109. ROAD MARKING IN ARCTIC OPERATIONS. **a.** As winter snowfall, fog, and snowdrifts frequently make roads and terrain features unrecognizable, road marking is essential. Roads are marked uniformly by durable markers, if possible, before the first snowfall.

b. In an open country, poles about 8 feet high with direction markers, snow markers, wisps of straw, brushwood, rock cairns, and flags may be used as markers.

c. In wooded terrain, tree trunks are marked with blazes, placards, or paint; branches are bent; boards, paper, or cloth remnants are fastened to trees.

d. The markers should be numbered in the direction of march, and should be placed at equal distance from one another. They should be erected at least 3 feet off the trail to avoid damage by traffic.

e. If complete road marking is practicable, arrow signposts may be erected at prominent points to indicate the direction of march and distance to the objective. For short distances, direction arrows are normally sufficient.

f. Road markers in use for long periods of time must be checked periodically. If routes are changed, the distances indicated on the markers must be revised.

g. Simple marks in the snow, snow markers, and similar signs are adequate for the marking of temporary roads. If strange trails cross the temporary roads, they must be obliterated so that troops will not go astray. It is frequently advisable to provide guides for such points in order to keep units on the proper route.

110. WINTER ROAD SERVICE. Regulating and supervising traffic is an essential part of Arctic winter road service. Traffic control points and patrols should be linked with the existing communications net. In order to prevent accidents and traffic jams, strict road discipline must be maintained. Each individual using the road, especially the drivers of motor vehicles, must observe all traffic signs and obey all orders. Posts for road guards must be established along the road, and communication between these posts and headquarters provided. The road guards should reconnoiter difficult

sections of the road before the first snowfall, and, after the beginning of freezing weather and snow, again travel over these sections and check their condition. They report immediately the depth of snowfalls and snowdrifts and the location of icy surfaces.

111. SUMMER OPERATIONS IN THE SUB-ARCTIC. The area south of the tree line on the North American Continent is referred to as the Sub-Arctic. This area possesses established road nets which will support year-round military operations. The weather in the Sub-Arctic during the summer months is, in many ways, like that found in the north-central or northwestern portion of the United States. However, the area is sparsely settled. Twilight falls late in the summer months when there is no period of real darkness.

112. TRAFFIC CONTROL SUMMER OPERATIONS. Personnel assigned to traffic control duties in the Sub-Arctic must be trained in the ways of the North. Patrols normally are conducted in wheeled vehicles equipped with emergency equipment to aid the military driver. Traffic-control personnel carries out its duties in aiding the traveler and enforcing regulations very much the same as in any other country supporting a road net.

113. WINTER TRAFFIC OPERATIONS IN THE SUB-ARCTIC. a. Snow, ice, and severe temperatures are experienced on the road net found in the Sub-Arctic. Vehicle traffic is practicable during winter months provided the road net is kept open with

snow-clearing vehicles. For short periods of time, however, traffic may be halted by high winds and blowing snow.

b. Winterization of all vehicles is mandatory for winter operations in the Sub-Arctic. Closed cabs and heated vehicles, lugs and chains, must be provided.

c. The "buddy system" is applied to man and machine in Arctic and Sub-Arctic operations. Two drivers are required for each vehicle.

114. TRAFFIC CONTROL IN WINTER OPERATIONS. **a.** With the beginning of winter operations, the maintenance of traffic circulation becomes an increasingly essential phase of military operations over an established road net.

b. Personnel assigned to traffic control duties must be alert to prevent traffic conflicts and to make necessary adjustments. Turn-arounds and parking areas for storage of disabled vehicles must be provided.

c. Arctic and Sub-Arctic traffic control posts must be manned with double the strength usually assigned for such posts or checkpoints. Military police cannot be required to stand directing traffic for more than one-half hour without a warm-up period in a heated shelter which must be provided near the post. A parka hood painted a bright red or yellow identifies the military policeman in winter clothing.

115. SUMMER TRAFFIC OPERATIONS IN THE ARCTIC. Traffic movements will be considerably restricted in summer in the greater portion of the Arctic. Travel is made difficult by thawing of the perma-frost near the surface, with the resultant formation of many swamps, shallow lakes, and tundra.

APPENDIX I

RULES OF THE ROAD

- 1.** The following general rules of the road will be observed by drivers of military vehicles except when and as modified by appropriate military or civil authorities, when the tactical situation and pertinent instructions relating thereto direct different procedure, or when traffic control personnel or traffic control signs, markings, or other devices indicate otherwise. When outside the continental United States, the rules of the roadway differ from domestic rules; orders will be given as to what rules will apply and appropriate variations will be specified.
- 2.** All traffic will comply with traffic control signal indications, in accordance with the following:

 - a. Green or "go."** Traffic facing the signal may proceed straight through at a speed which would permit sudden stop or change in direction or turn right or left unless signs or signals prohibit such turns. The right-of-way shall be yielded, however, to other traffic lawfully within the intersection at the time the signal is exhibited.
 - b. Yellow or "caution" when shown following green signal.** Traffic facing the signal will stop before entering the intersection; if such stop cannot be made

in safety, a vehicle may be driven cautiously through the intersection.

c. Red or "stop." Traffic facing the signal will stop before entering the intersection or at such point as may be indicated, and will remain stopped until the green or "go" signal is shown alone.

d. Red with green arrow. Traffic facing such signal may cautiously enter the intersection only to make the movement indicated by such arrow.

e. Flashing red (stop signal). Drivers of vehicles will stop before entering the intersection or at a marked limit line. The right to proceed will be subject to the rules applicable at a stop sign.

f. Flashing yellow (caution signal). Drivers of vehicles may proceed through the intersection or past such signal only with caution.

3. Upon roadways of sufficient width, a vehicle will be driven upon the right half of the roadway, except as follows:

a. When overtaking and passing another vehicle proceeding in the same direction, under the rules governing such movement.

b. When the right half of the roadway is closed.

c. Upon a roadway divided into three marked lanes for traffic, under the rules applicable thereon.

d. Upon a roadway designated for one-way traffic.

4. Drivers of vehicles proceeding in opposite directions will pass each other to the right. Upon roadways having width for not more than one line of traffic in

each direction, each driver will, as nearly as possible, give the other at least one-half of the main traveled portion of the roadway.

5. The following rules will govern overtaking and passing, subject to limitations stated herein and elsewhere:

a. The driver of a vehicle overtaking another vehicle proceeding in the same direction will pass to the left thereof at safe distance and will not again drive to the right of the roadway until safely clear of the overtaken vehicle.

b. No vehicle will be driven to the left of the center of the roadway in overtaking and passing another vehicle proceeding in the same direction unless such left side is clearly visible and is free of oncoming traffic for a sufficient distance ahead to permit such overtaking and passing to be completed without interfering with the safe operation of any vehicle approaching from the opposite direction or any vehicle overtaken. The overtaking vehicle must return to the right side of the roadway before coming within 100 feet of any vehicle approaching from the opposite direction.

c. An overtaken convoy or group of vehicles will not be passed by another unless directed to do so by traffic control personnel or until it is ascertained that the maneuver can be completed without confusion.

d. The driver of a vehicle may overtake and, allowing sufficient clearance, pass another vehicle proceeding in the same direction on the left or, where permitted by local regulation, on the right of a roadway of sufficient width for four or more lines of moving traffic, when such movement can be made in safety.

e. The driver of a vehicle may overtake and pass upon the right of another vehicle which is making or is about to make a left turn.

f. Except when overtaking and passing on the right are permitted, the driver of an overtaken vehicle will give way to the right in favor of the overtaking vehicle and will not increase speed until completely passed.

6. No vehicle will at any time be driven to the left of the roadway center line under the following conditions:

a. When approaching the crest of a grade or upon a curve in the highway where the driver's view along the highway is obstructed.

b. When approaching within 100 feet of any bridge, viaduct, or tunnel or when approaching within 100 feet of or traversing any intersection or railroad grade crossing.

c. Where official signs direct traffic to keep to the right or where traffic is so directed by a distinctive center-line marking.

7. Upon a roadway designated for one-way traffic, a vehicle will be driven only in the direction indicated.

8. A vehicle passing around a rotary traffic island will be driven only to the right of the island.

9. Whenever any roadway is divided into three or more clearly marked lanes of traffic, the following rules, in addition to all others consistent herewith, will apply:

a. A vehicle will be driven entirely within a single lane as nearly as practical and will not be moved from such lane until the driver has first ascertained that such movement can be made with safety.

b. Upon a roadway which is divided into three lanes, a vehicle will not be driven in the center lane except when overtaking and passing another vehicle where the roadway is clearly visible and such center lane is clear of traffic within a safe distance, or in preparation for a left turn, or where such center lane is at the time allocated exclusively for the traffic moving in the direction in which the vehicle is proceeding.

c. Drivers of vehicles will obey directions for certain traffic to use a designated lane or directions allocating specified lanes to traffic moving in the same direction.

10. The driver of a vehicle intending to turn at an intersection will do as follows:

a. Both the approach for a right turn and the turn itself will be made as close as practical to the right curb or edge of the roadway.

b. Approach for a left turn will be made in that portion of the right half of the roadway nearest the center line thereof, and after entering the intersection, the left turn will be made so as to leave the intersection to the right of the center line of the roadway being entered.

c. Approach for a left turn from a two-way road into a one-way road will be made in that portion of the right half of the roadway nearest the center line thereof and by passing to the right of such center line where it enters the intersection. A left turn from a

one-way road into a two-way road will be made by passing to the right of the center line of the road being entered upon leaving the intersection.

d. Markers, buttons, or signs directing turns to be made in a specified manner will be followed by drivers of all military vehicles regardless of the fact that they may be contrary to instructions contained herein.

11. No vehicle will be turned so as to proceed in the opposite direction upon any curve or upon the approach to or near the crest of a grade where such vehicle cannot be seen by the driver of another vehicle approaching from either direction within 500 feet.

12. No person will start a standing vehicle unless such movement can be made with reasonable safety.

13. No person will turn a vehicle from a direct course upon a highway unless such movement can be made with reasonable safety and only after giving a clearly audible or legible signal if any other traffic may be affected by such movement.

14. A proper signal of intention to turn right or left will be given continuously during not less than the last 100 feet traveled by the vehicle before turning.

15. No person will stop or suddenly decrease the speed of a vehicle without indicating his intention to stop or turn, when there is opportunity to do so, by extending the hand and arm from and beyond the left side of his vehicle, in accordance with the following:

- a. **Left turn.** Hand and arm extended horizontally.
- b. **Right turn.** Hand and arm extended upward.

c. Stop or decrease speed. Hand and arm extended downward.

16. The driver of a vehicle approaching an intersection at which no traffic control is in effect will yield the right-of-way to a vehicle which has entered the intersection from a different highway; when two vehicles enter the intersection from different highways at or approximately at the same time, the driver of the vehicle on the left will yield the right-of-way to the vehicle on the right.

17. The driver of a vehicle will stop at a through highway and yield the right-of-way to other vehicles which have entered the intersection or which are approaching so closely on the through highway as to constitute an immediate hazard. Having so yielded, the driver may proceed and the drivers of all other vehicles approaching the intersection on the through highway will yield the right-of-way to the driver. The same provisions will apply to drivers at an intersection where a stop sign is erected at one or more entrances thereto, although not a part of a through highway.

18. Drivers of vehicles will comply fully with the instructions on all authorized signs posted for the direction, warning, or regulation of traffic.

19. No vehicle will be stopped or parked upon the traveled portion of a roadway nor at any location where such stopping or parking is specifically prohibited except as necessary for safety, or in compliance with the directions of traffic control personnel or devices, or when and where otherwise authorized or necessary.

20. Whenever a driver of a vehicle approaches a railroad grade crossing and a clearly visible electric or mechanical signal device or a flagman gives or continues to give a signal of the approach or passage of a train, the driver of such vehicle will stop not less than ten feet but within 50 feet of the nearest railroad track and will not proceed until he can do so safely.
21. The driver of a vehicle upon a highway will give audible warning with his horn when necessary to insure safe operation, but will not otherwise use the horn.
22. Except when the tactical situation prevents or existing instructions of competent authorities prohibit, vehicle lights will be turned on when traveling upon a roadway at any time between one-half hour after sunset and one-half hour before sunrise and at other times when there is insufficient light to render persons and other vehicles on the roadway clearly visible at a distance of 500 feet.
23. No vehicles except those expressly authorized will be equipped with a siren, bell, exhaust whistle, or other unauthorized audible warning device or lights other than those prescribed as standard equipment.
24. When traveling with standard headlights on, the driver of the vehicle will use the lower or meeting beam when approaching within 500 feet of an oncoming vehicle or at other times when failure to do so might cause glare-blinding of oncoming drivers.
25. Drivers of Government vehicles will give full time and attention to driving at all times when operating a vehicle.

APPENDIX II

TRAFFIC CONTROL DEVICES

- 1. TRAFFIC SIGNS.** a. A traffic sign is a device mounted on a fixed or portable support, containing words or symbols for the purpose of regulating, warning, or guiding traffic.
b. Temporary military traffic signs consist normally of black printing on plain white cardboard, metal, or wood, 17 inches square. The engineers are responsible for supplying and posting such signs. The military police are provided with a "sign reproduction kit" (see FM 5-10), for use when a situation is such that engineers are unable to furnish and post signs.
c. Permanent military traffic signs should conform to the specifications prescribed in the *Manual on Uniform Traffic Control Devices* published by the Public Roads Administration and FM 25-10.
- 2. TRAFFIC SIGNALS.** Red, amber, and green "stop and go" signals are used by military police controlling traffic at intersections in stabilized situations where the volume is large and conflicts are frequent. Signals are operated either mechanically or manually. Manually operated signals require the same flow phase decisions as manual control signals.
- 3. SPEAKER SYSTEMS.** Public-address or loud-speaker systems are used, when available, to give verbal

traffic directions or instructions at critical points. They do not replace manual signals in controlling flow at an intersection. Such amplifying systems save time in giving instructions to individuals or groups of drivers as they pass a point. The military policeman using this system should place himself so that he is clearly visible to traffic. To prevent confusion, he points at the vehicle or group of vehicles to which his instructions are directed.

4. BLACKOUT CONTROL EQUIPMENT. a. Reflectorized traffic baton.

- (1) *Description.* The baton consists of a plastic, two-cell flashlight case with leather thong attached, a reflector, bulb, amber filter, a plastic tube hexagonal in cross section with amber reflector buttons attached to each face, and an opaque cap fitted on the end of the baton. (See fig. 49.)
- (2) *Visibility.* The maximum visibility of the baton under normal conditions is 1,200 feet;

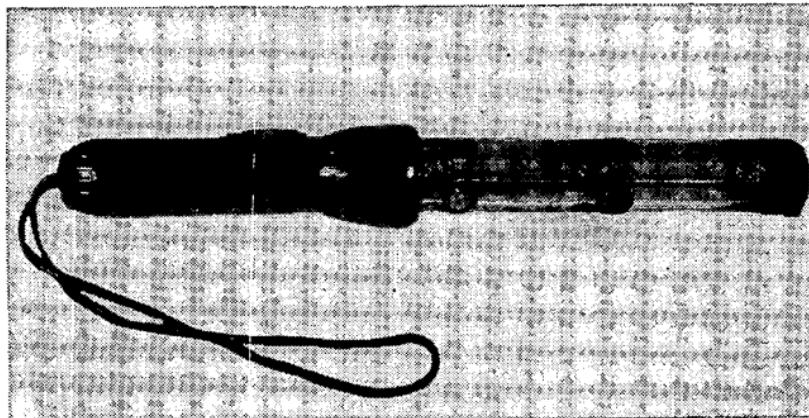


Figure 49. Reflectorized traffic baton.

thus reasonable security from aerial detection is provided. The baton is distinctly visible as a light source and can be used to indicate directions at a distance of 250 feet. Under normal night conditions the reflector buttons, activated by the light from vehicle headlights, indicate direction at a distance of 500 feet.

(3) *Application.* The baton is used by military policemen for traffic control work under black-out or normal light conditions. The bulb is used under black-out conditions, and the reflector buttons without the bulb is used under normal night conditions.

b. **Delineator stake, reflector mounting.**

(1) *Description.* This unit consists of a hardwood stake 34 inches in length and an oval reflector button, $\frac{3}{4} \times 1\frac{1}{4}$ inches, mounted in a metal bracket. The button consists of a plastic reflectorized material, and has the property of returning light to the source with a very small angle of dispersion. (See fig. 50.)

(2) *Visibility.* The reflector button is capable of reflecting light from the black-out driving lamp to distances from 200 to 250 feet. A series of buttons mounted within the limit of visibility will outline the roadway to approach-



Figure 50. *Delineator stake, reflector mounting.*

ing drivers. For normal night driving, these buttons may be seen up to distances of 2,000 feet.

(3) *Application.* The reflector buttons are used under black-out or normal night conditions to outline roads and mark hills, curves, high embankments, or other physical hazards. Reflector buttons may be mounted on opposite sides of a single stake to provide delineation in both directions. Stakes normally should be placed 1 foot from the edge of the road, and sunk in the ground to a depth that will place the reflector button approximately 22 inches above the roadway. Stakes are placed from 5 to 15 paces apart, depending upon the character of the road. In some cases, a single stake is sufficient to mark a specific hazard, such as a culvert.

c. Electric flasher lamp.

(1) *Description.* The flasher lamp consists of two batteries, a bulb, a reflector, lens, and a flashing device inclosed in a plywood case. (See fig. 51.) It flashes 60 to 80 times a minute, and will operate continuously for approximately 1 year without change of batteries. Because of this shelf life of the batteries, a cut-off switch is unnecessary.

(2) *Visibility.* The lamp has a minimum visibility distance of 500 feet, and is invisible at distances of more than 1,000 feet. It is highly directional, thus providing reasonable security under black-out conditions. The lamp may be turned face down to make the light invisible.

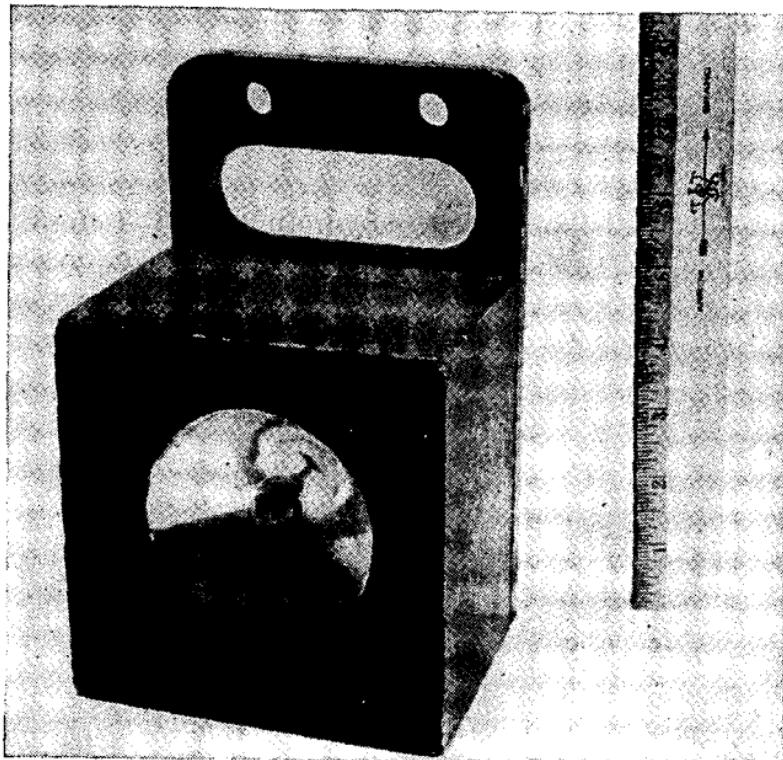


Figure 51. Electric flasher lamp.

(3) *Application.* The flasher lamp is suitable for use under black-out conditions or ordinary night conditions to indicate bridges, disabled vehicles, and other road obstructions or hazards. It may be placed on any level surface without support. By means of an extension on the back, it may be hung or nailed on a tree, post, or building.

5. INDIVIDUAL EQUIPMENT. a. Military police assigned to traffic control duty should have the following special equipment:

- (1) Military police brassard.
- (2) Whistle.
- (3) Wrist watch (with luminous dial).
- (4) Compass (with luminous dial).
- (5) Notebook.
- (6) Pencil.
- (7) Accident investigation forms.
- (8) Driver's Accident Report Form 91.
- (9) Flashlight.
- (10) Map case with copies of necessary maps, overlays, orders, and schedules, when the tactical situation permits.

b. Manual signals are executed at night with a reflectorized baton. In addition, military police should be equipped for normal night or black-out work with white or reflectorized material to be more readily visible to drivers. White gloves or white bands on the arms make signals clearer, and white or reflectorized material around the waist and legs makes it easier for drivers to see a military policeman posted in the roadway.

6. VEHICLES. Motor vehicles are required in the supervision of movement of traffic. Motorcycles are satisfactory for patrol, escort, and messenger work. The $\frac{1}{4}$ -ton truck is suitable for practically all traffic control, including reconnaissance, escort, patrol, and messenger work, and for carrying personnel and equipment, and is preferable to the motorcycle under most conditions. In addition, $\frac{3}{4}$ -ton personnel carriers and larger vehicles are needed. Vehicles used in escort, patrol, and enforcement work should be so marked so that they can be readily identified as such.

APPENDIX III

TRAFFIC SURVEYS

1. GENERAL. a. Traffic surveys are the means of obtaining data concerning traffic behavior and movement. The provost marshal normally will initiate traffic studies of existing or anticipated conditions. He will cooperate with the unit engineer and such agencies as necessary. Specially trained personnel is used to supervise traffic survey studies, analyze the data, and formulate reports. Normally, military police will be used for gathering field data for survey studies.

b. Traffic surveys may be conducted to determine control requirements on military reservations, in urban occupied areas, and in static war-zone areas where traffic congestion and traffic accidents indicate the need for such surveys. Seldom are they considered practical in a fast moving tactical situation, with the possible exception of volume counts as a means of aiding in circulation planning and designation of "Main Supply Routes—Open, Supervised, Dispatch, or Reserved Routes." (See par. 102, FM 25-10.)

c. Traffic surveys are the means of obtaining data concerning traffic behavior and movement. Analysis of the data provides an effective guide to proper regulation and control of traffic. Traffic survey data will assist the military police in—

- (1) Locating and eliminating potential hazards created by obstructions to visibility and inadequate street maintenance.
- (2) Improving the efficiency of traffic flow by rerouting "through" traffic, by recommending improvements in street design, and by placing special restrictions on the direction of vehicular movement.
- (3) Recommending the use of uniform signs, signals, and street markings, and the location of enforcement personnel.
- (4) Determining the degree of enforcement required to attain minimum congestion and accidents, and at the same time facilitate continuous and sufficiently rapid movement of traffic.

2. TYPES OF SURVEYS—STUDIES. Inasmuch as the Army seldom plans extensive new street and highway facilities, the studies conducted bear more relation to enforcement, education, and engineering maintenance than to new designs and construction. All studies are made during good weather unless there is special reason to observe under unfavorable road and weather conditions. The types of surveys generally employed for military traffic control are—

- a. Accident frequency locations.
- b. Comparative accident records of units.
- c. Vehicle volume counts to determine the number and direction of vehicles proceeding through an intersection or along a street during a given period.
- d. Speed checks to obtain an accurate record of speeds at which vehicles are approaching a given intersection or proceeding along a given street.

- e. Physical inventories to determine the physical condition of signs, signals, and markings, and the existence of potential physical hazards.
- f. Violation observation studies to include—
 - (1) Driver observance of stop signs.
 - (2) Driver observance of traffic signals.
 - (3) Pedestrian (individual and columns) observance of traffic signals and regulations.

3. VEHICLE VOLUME COUNT. a. Vehicle volume counts may be made at the following locations:

- (1) All intersections near congested centers (headquarters, service clubs, post exchanges, theaters, etc.).
- (2) Intersections at which accidents have occurred.
- (3) Important intersections on federal or state highways within reservations.
- (4) Entrances to reservations.

b. Vehicle volume counts may be made at the following locations in urban areas:

- (1) Intersections in business districts.
- (2) The worst accident intersections.
- (3) Important intersections on thoroughfares and military routes in residential districts.
- (4) Intersections equipped with mechanical signals.
- (5) On major thoroughfares and military routes at city limits.

c. Two persons are needed to make a vehicle column count at most intersections. More may be used if traffic is exceptionally heavy. One checker is usually sufficient to make vehicle volume count between inter-

sections, but traffic may be so heavy that two are necessary. Mechanical devices may be used for mid-block or straight-of-way counts, if available.

d. The following equipment is needed:

- (1) Pencil and eraser.
- (2) Ordinary watch.
- (3) Field sheet.
- (4) Summary sheet.

e. Vehicle volume counts are made in good weather unless there is a specific reason for making them under other conditions. Counts are made on days when vehicle flow is considered normal, usually from Monday to Friday. A count normally is made over a period of 12 hours, from 0700 to 1900. If long period counts are impractical, a short count of 1 to 3 hours may be made at a particular location and adjudged by percentage computation to show the average daily volume.

f. The field sheet (see fig. 52) is the tally sheet used in the actual counting at the location under observation. A new sheet is used each half hour. When two persons are conducting a vehicle volume count at an intersection, they stand on diagonally opposite corners. Each person counts the vehicles entering the intersection from two directions. For example, one man, standing on the northwest corner, counts vehicles coming from the north and from the west; the other man, standing on the southeast corner, counts vehicles coming from the south and from the east. All vehicles entering the intersection are counted. The tally sheet is designed to resemble a four-way intersection. Vehicles entering from each direction are recorded in the

VEHICLE VOLUME COUNT
FIELD SHEET

HALF HOURLY

Date..... 13 Oct. 1948 Location..... High & Hanover St, Carlisle
Weather..... Fair Road Surface Conditions. Dry Time 0900-0930

Indicate North
by arrow

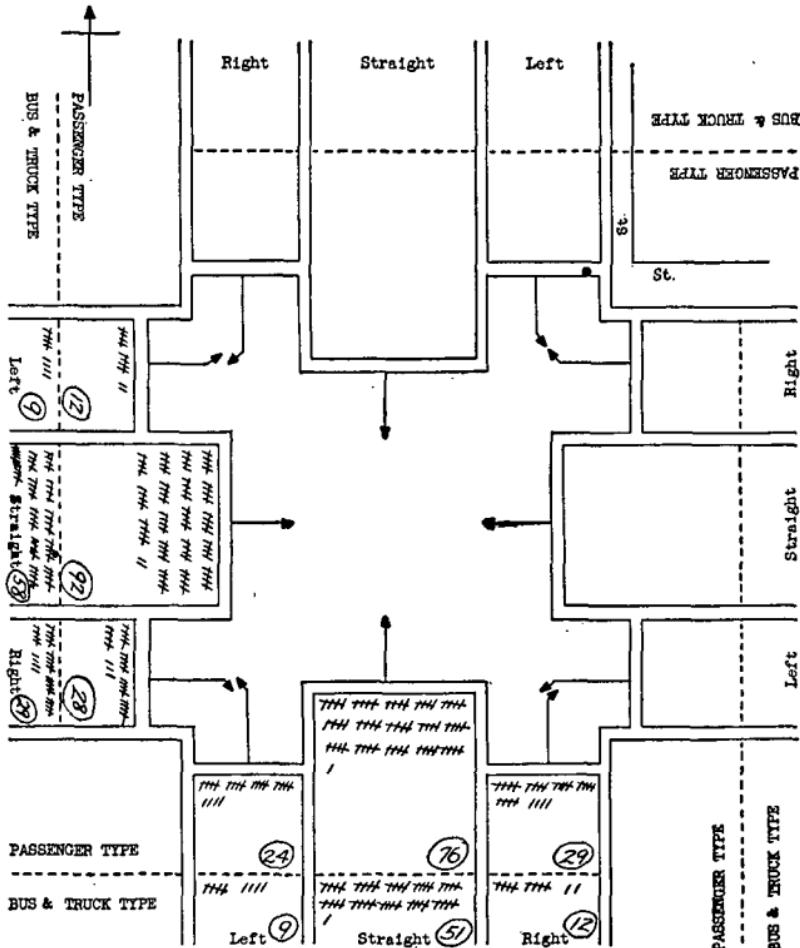


Figure 52.—Field sheet for volume count.

VEHICLE VOLUME COUNT
FIELD SHEET

HALF HOURLY

Date..... 13 Oct. 1948 Location..... High & Hanover St. Carlisle, Pa
Weather..... Fair Road Surface Conditions..... Dry Time..... 0900-0930

Indicate North
by arrow

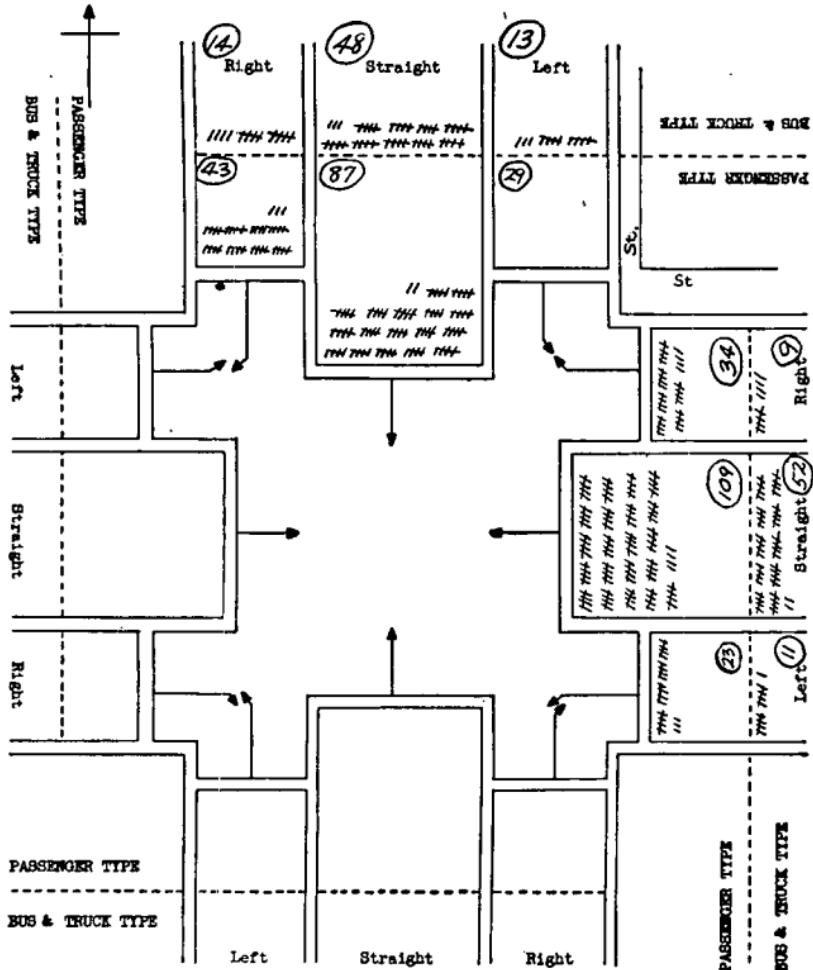


Figure 52—Continued.

space provided. Figure 52 portrays a field sheet which is properly filled out.

g. The summary sheet (fig. 53) is a statistical compilation of the information recorded on the field sheets.

h. There are numerous applications of motor vehicle volume studies. The most important for military police include—

- (1) To justify the existence or installation of traffic signals. Generally, a minimum of 1,000 vehicles per hour for an 8-hour period, with 25 percent entering from the minor street, is required.
- (2) To indicate the need for stop signs and determine the streets on which the signs should be located. At corners where the volume on the major street averages 300 vehicles an hour for 6 consecutive hours, stop signs should be erected on the minor street.
- (3) To indicate the relation of turning movements to accidents and congestion. Generally, a minimum of 1,000 vehicles an hour for an 8-hour period, with the average of 300 vehicles an hour making a left turn, requires special flow regulation.
- (4) As a partial basis for determining the advisability of designating "through" streets and special military routes.
- (5) As a partial basis for assigning military police to intersection duty. As a general rule, constant flow regulation by military police is only warranted for a rate of flow through an intersection of over 1,000 vehicles an hour, with

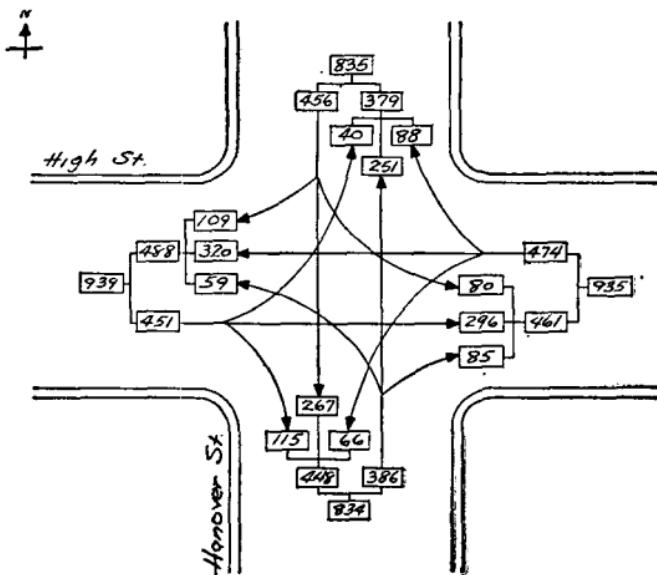
VEHICLE VOLUME

Graphic Summary Sheet

Date 13 Oct 48

Location: High St. and Hanover St.
City or Post: Carlisle Pennsylvania
Weather: Fair Type and Condition of Paving: Pavement-Dry

Hour	Hanover St. N Bound			Hanover St. S Bound			High St. E Bound			High St. W Bound			Total
	L	S	R	L	S	R	L	S	R	L	S	R	
1/2 Hr. 0900	33	127	41	42	135	57	21	150	57	34	161	43	901
1/2 Hr. 0930	26	124	44	38	132	52	19	146	58	32	159	45	875
Total 1 Hr.	59	251	85	80	267	109	40	296	115	66	320	88	1776



Remarks:

Special conditions affecting: None

Recommendations:

further study of conditions which may cause accidents and congestion or perhaps be contributing causes.

Compiled by: Reynolds

Figure 53. Traffic summary sheet.

at least 20 percent of the total volume conflicting with the heavier flow.

4. SPEED CHECK. a. **Choosing location.** At posts, camps, stations, and areas of military control, speed checks may be made at the following locations:

- (1) Primary accident intersections.
- (2) Important intersections on federal or state highways within the reservation or area of control.
- (3) Midblock locations on important streets and thoroughfares that require special speed zoning, particularly at worst accident locations.

b. Uses.

- (1) To determine a reasonable speed limit on a particular street or in a particular zone.
- (2) To determine if prevailing speeds are too fast for conditions.
- (3) To aid in planning an enforcement program directed at the upper speed bracket.
- (4) To aid in determining the need of regulatory (speed and stop) signs, warning signs, and guide signs. The distances from the intersection at which warning signs should be located for four ranges of average speed are—

<i>Miles an hour</i>	<i>Feet</i>
Under 15	35
16 to 25	55
26 to 35	100
36 to 50	180

Stop signs are posted at the point at which vehicles are required to halt whenever physical conditions of road or street permit.

c. Time and length of study. The time of making a speed check is determined by the purpose of the study. Normally, three 1-hour periods or three periods of not less than 100 vehicles each should suffice for a speed check.

d. Equipment. Two persons are needed to make a motor vehicle speed check. They require the following equipment:

- (1) Pencil and eraser.
- (2) Stop watch.
- (3) Fifty to a hundred foot tape.
- (4) Chalk or black crayon.
- (5) Field sheet.

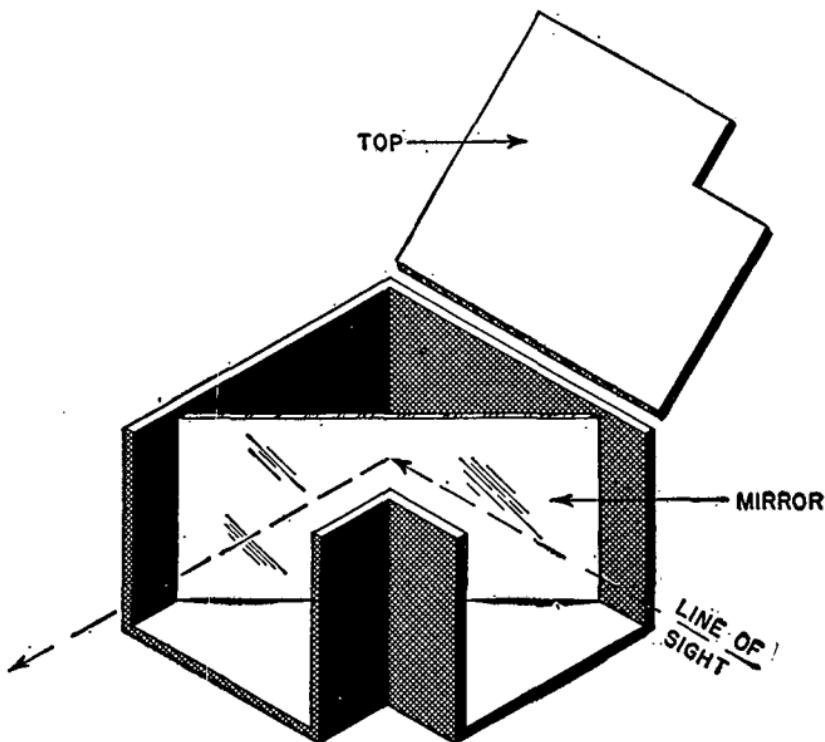


Figure 54. Mirror Box.

(6) L-shaped "mirror box" easily constructed by unit carpenter. (See fig. 54.)

e. Methods of speed check.

(1) A measured course must be laid out at the location under study. On an "intersection approach," an 88-foot length is measured back from a point where traffic normally stops, or at the rear line indicating pedestrian crossing lane. At a midblock location, a 176-foot course is preferable. (The reason for using 88-foot or 176-foot check zones is for ease of computing, since a vehicle traveling 60 miles per hour covers 88 feet per second.)

(2) The study may be made by the use of one mirror box as shown in figure 55 where the observer takes his position at the end of the zone from the mirror box. As the vehicle passes the mirror box, a flash will be visible to the observer. The stop watch is started at the time of the flash in the mirror and is stopped when the front bumper of the vehicle passes a line even with the observer. The elapsed time is noted, and a tally recorded on the corresponding line of the field sheet. One military policeman checks and an assistant records. (See fig. 56.)

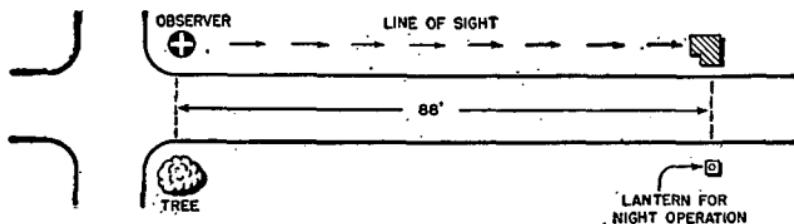


Figure 55. Method of using one mirror box.

SPEED CHECK

2031

Field Sheet

Date 10 Oct 48 Location US 11 - at High St
 0700' Capitol, Pa. Direction E 95°
 Time 1900 Weather Fair Road: Width 36' Condition Good -
 Type of Pavement Asphalt

Sec- onds	MPH 88'	MPH 176'	Civilian			Military			Cum. Total	Cum. %
			Passenger Type	Tr & Bus	Total	Passenger Type	Trucks	Total		
1	60.0	120.0								
1-1/5	50.0	100.0								
1-2/5	42.8	85.7								
1-3/5	37.5	75.5								
1-4/5	33.3	66.6								
2	30.0	60.0								
2-1/5	27.2	54.5	I		I				200	1000
2-2/5	25.0	50.0	II		2	I		I	199	99.5
2-3/5	23.0	46.1	III	I	4				196	98.0
2-4/5	21.4	42.8	III	I	4	II	I	3	192	96.0
3	20.0	40.0	III		5	II	II	4	185	92.5
3-1/5	18.7	37.5	III	I	8	III	II	6	176	87.5
3-2/5	17.6	35.2	III	II	10	III	II	8	162	81.0
3-3/5	16.6	33.3	III	III	12	III	III	12	144	72.0
3-4/5	15.7	31.5	III	III	14	III	III	10	120	60.0
4	15.0	30.0	III	II	14	III	III	10	96	48.0
4-1/5	14.2	28.9	III	III	9	II	III	8	72	36.0
4-2/5	13.6	27.2	III		7	II	III	8	55	27.5
4-3/5	13.0	26.1	III	II	5	II	III	7	40	20.0
4-4/5	12.5	25.0	II	I	3	I	III	4	28	14.0
.5	12.0	24.0	II	III	5	I	II	3	21	10.5
5-1/5	11.5	23.0	II	II	4		I	1	19	6.5
5-2/5	11.1	22.2		I	1			1	8	4.0
5-3/5	10.7	21.4	I		1				6	3.0
5-4/5	10.3	20.6	I	I	2		I	1	5	2.5
6	10.0	20.0	I		1				2	1.0
6-1/5	9.6	19.3			0					.5
6-2/5	9.3	18.7		I	1					.5
6-3/5	9.0	18.1								
6-4/5	8.7	17.6								
7	8.5	17.1								
7-1/5	8.3	16.6								
7-2/5	8.1	16.2								
7-3/5	7.8	15.7								
7-4/5	7.6	15.3								
8	7.5	15.0								
8-1/2	7.0	14.1								
9	6.6	13.3								
9-1/2	6.3	12.6								
10	6.0	12.0								
11	5.4	10.9								
12	5.0	10.0								
TOTAL		72	41	113	43	44	87	200	100	

Reynolds

Recorder

Figure 56. Field sheet for speed check.

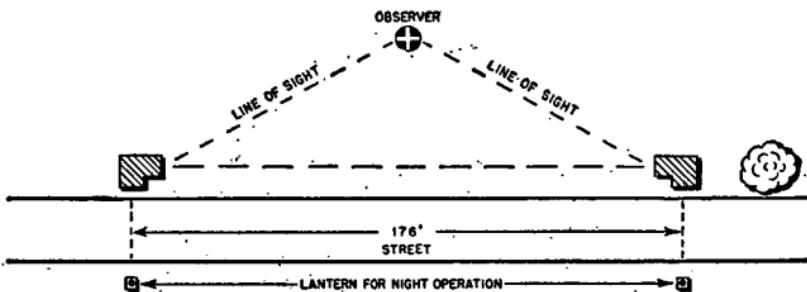


Figure 57. Speed check with two mirror boxes.

- (3) The use of two mirror boxes as in figure 57 is considered more accurate than the use of one. When using two mirror boxes, the observer should be located at the approximate midpoint between them.
- (4) The mirror box and observer should be placed so as to be inconspicuous to motorists to keep them from slowing down and giving an abnormal picture of speed conditions.
- (5) When a mirror box is not available, a second observer can signal with a movement of his hand to the "observer-timer" at the other end of the 88-foot or 176-foot course. This method is not as accurate, and may be so obvious to motorists as to cause them to reduce their speed.
- (6) The field sheet (see fig. 56) is the tally sheet used during the speed check. It is also used to summarize the break-down of speed groups. One sheet should be used for each direction of movement. The observer should be cautioned to check the next vehicle entering the observed zone each time, not to select the faster vehicles.

(7) A graphic presentation (see fig. 57) of speed behavior should be included in a survey report. Generally, the "85 percentile," that speed which 85 percent of motorists do not exceed, is found to be a safe speed for zoning, with some exceptions found where there are extreme speed differentials or where there are insufficient regulatory or warning signs. The speed range from low to high should be noted as well as the model group (that speed group in which the largest percent of the vehicles travel) and the median speed (that speed which 50 percent of the vehicles do not exceed).

5. OBSERVANCE STUDIES. a. Accidents may be frequent at intersections where motorists and pedestrians disobey signs and signals. The degree of disobedience at such intersections is measured by observance studies, which show the observance by motorists and pedestrians of signs and signals. A high percentage of disobedience often indicates lack of enforcement and education, or fault in engineering.

b. Common faults that may be discovered by observance studies are—

- (1) Too long a cycle thereby inviting motorists to "jump the light."
- (2) Too short a cycle, insufficient to clear all traffic, thereby inviting motorists to "run the red."
- (3) Lack of yellow period sufficient to permit proper clearance of the intersection before the lights change.

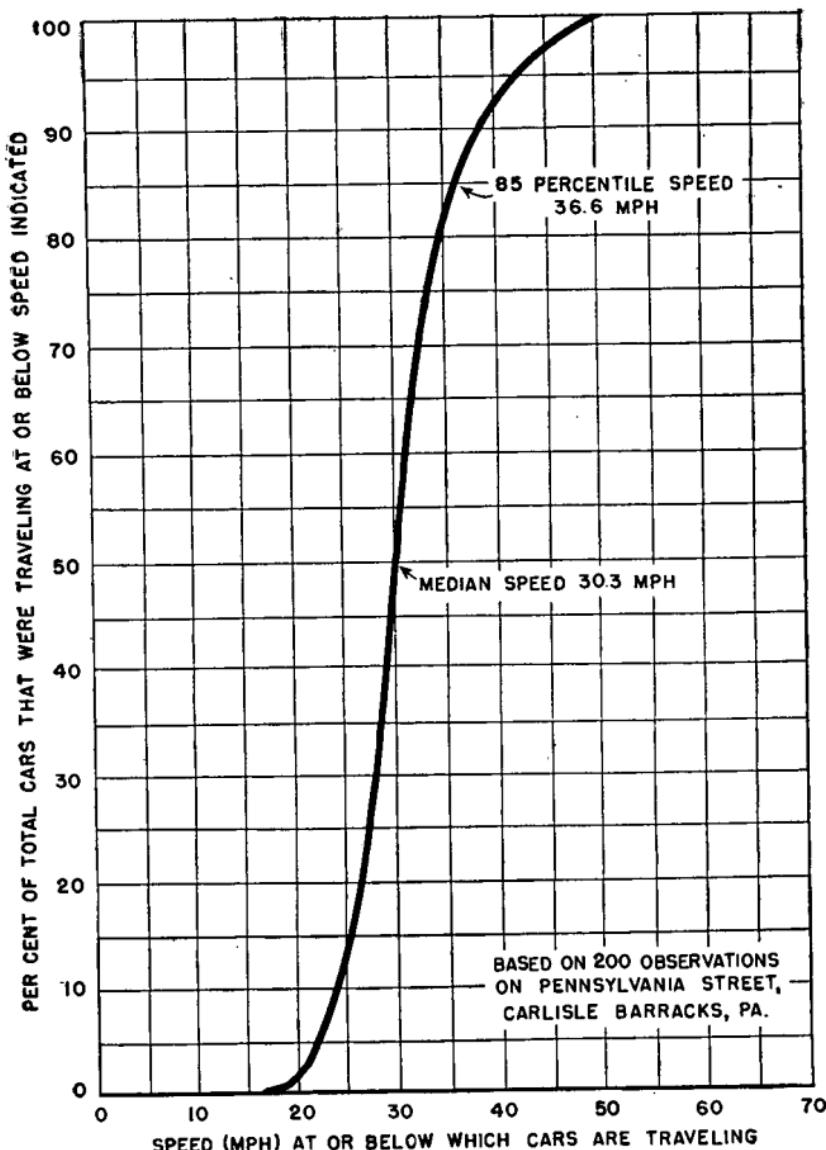


Figure 58. Graphic summary of speed check.

To accompany
2031

STOP SIGN OBSERVANCE
Field Sheet

DATE LOCATION

WEATHER Road Surface Condition Time

NON-STOP

--	--	--

STOPPED BY TRAFFIC

--	--	--

VOLUNTARY STOP

--	--	--



VOLUNTARY STOP

--	--	--

STOPPED BY TRAFFIC

--	--	--

NON-STOP

--	--	--

TOTALS

Non-Stop-----

Stopped by Traffic-----

Voluntary Stop-----

Figure 59. Stop sign observance field sheet.

TRAFFIC SIGNAL OBSERVANCE
FIELD SHEET

DATE LOCATION

WEATHER ROAD SURFACE CONDITIONS

TIME

Indicate North
by arrow



CEN NO GREENLINE					
ENTERED ON AMBER					
ENTERED ON RED					
CEN NO GREENLINE	ENTERED ON AMBER	ENTERED ON RED	L	S	R
			L	S	R
			L	S	R
ENTERED ON GREEN					
ENTERED ON AMBER					
ENTERED ON RED					

Recorder

Figure 60. Traffic signal observance field sheet.

c. Stop sign obedience has often been improved by such simple methods as—

- (1) Repainting the sign.
- (2) Clearing away brush in front of the sign.
- (3) Moving the sign closer to the intersection.
- (4) Adding a special stop line on pavement.
- (5) Replacing the sign by a reflector button type or otherwise improving its visibility at night.

d. Forms for recording observance of traffic signals and stop signs are divided so that right turn, straight through, and left turn movements are noted in separate columns. (See figs. 59 and 60.)

6. PEDESTRIAN PROBLEM. Wherever pedestrian accidents are numerous, a count of the pedestrian volume should be made. A pedestrian count helps to determine whether—

- a. A fixed-time traffic signal is warranted.
- b. A special pedestrian traffic signal should be erected.
- c. A special pedestrian period should be added to an existing signal.
- d. Right or left turns of motor vehicles should be eliminated to permit safer movement for pedestrians.
- e. Other means of control are needed.

7. PHYSICAL INVENTORY. a. A physical inventory is made on DA AGO Form R-5233 (Physical Inventory) to determine the physical condition of signs, signals, and markings, and the existence of potential physical hazards. DA AGO Form R-5233 will be reproduced locally and is shown in Figure 61. One form is used for each intersection checked. The

PHYSICAL INVENTORY

City or Post _____ Date _____

Authority _____

	Location	Location	Location
TRAFFIC SIGNALS	TYPE-----		
	HEIGHT-----		
	VISIBILITY-----		
	Remarks-----		
SIGNS Regulatory, Warning, and Guide	TYPE (RWG)-----		
	CONDITION-----		
	HEIGHT-----		
	LETTER SIZE-----		
	COLOR-----		
	PERMANENT OR TEMPORARY-----		
Remarks-----			
STREET MARKINGS	TYPE-----		
	CONDITION-----		
	COLOR-----		
	TEXT-----		
	VISIBILITY-----		
Remarks-----			
HAZARDS	TYPE-----		
	HEIGHT-----		
	EFFECT-----		
	Remarks-----		

Recommendations:

WD AGO FORM R-5233
1 DEC 1945

Figure 61. Physical inventory.

three upper sections of the form are filled out to record signals, signs, and street markings, such as painted or "mushroom"-marked safety zones, traffic lanes, turning lanes, special pedestrian crossings, etc. The bottom section is used to record potential street hazards created by hedges, walks, billboards, embankments, buildings, etc. Through consolidation of the individual reports, various statistical summaries can be prepared.

b. Through a physical inventory, military police can initiate a general "dressing up" of all traffic control devices, a greater uniformity of signs and signals, the elimination of unnecessary and obsolete signs, and the removal of any potential physical hazards. In urban areas of occupied territories, such an inventory is extremely useful as a guide for establishing uniform markings for routes. For further information concerning uniform traffic control devices, see the *Manual on Uniform Traffic Control Devices* approved by the Department of the Army and published by the Public Roads Administration.

8. TRAFFIC CIRCLES AND ROTARY MOVEMENTS. a. In the combat zone, when the volume of traffic is heavy at intersections of roads or streets, particularly where turning movements cannot be made readily by reason of insufficient turning space, street corners should be rounded off to allow sufficient radius for turning.

b. The designation of one-way streets adjacent to the congested intersection, diversion of turning vehicles at designated points before the intersection, and blending them into the moving stream beyond the intersec-

tion, can frequently be effected to eliminate turning movements in the intersection.

c. Where there are no existing roads or streets to accommodate such routing of traffic, the engineers can readily construct new sections of street or roadway to effect such movement. A traffic circle (concentric) may be superimposed over existing intersecting roads in areas where buildings or terrain do not interfere. The circle must be of sufficient size to allow traffic to weave into the proper lane and make exit on the desired road.

d. Similar rotary treatment of traffic at supply points or other congested areas will speed up movement and reduce the number of traffic control personnel required.

9. AFTERSTUDY. It is important to make a re-check of results obtained in reduction of traffic congestion and accidents after sufficient time has elapsed for the corrective measures to have taken effect. It will frequently be necessary to make additional changes and modifications as traffic behavior is not always consistent, and the cause of certain trends may not always be discovered from the data obtained in *one* study.

APPENDIX IV

MINIMUM TRAINING SCHEDULE FOR MILITARY POLICE TRAFFIC CONTROL

1. PURPOSE. This minimum training schedule is published only as a guide to the training of military police in the absolute essentials of military traffic control. It is designed to provide military police with sound basic training in all elements immediately essential to military traffic control.

2. OBJECTIVE. The objective in the application of this training schedule is to train the individual soldier in the essentials that are required for the efficient performance of traffic-control duty. Knowledge of the more technical aspects of military traffic control can be attained as additional training time becomes available.

3. CATEGORIES OF TRAINING. The training of military police in military traffic control is divided into two general categories—

a. Those matters that are absolutely essential for control of military traffic in combat (see par. 5 below), such as—

- (1) General definitions of military traffic control and characteristics of military traffic.
- (2) General principles of traffic control.

- (3) Duties of traffic military police.
- (4) Authority of traffic military police.
- (5) Problems of traffic conflict.
- (6) Road traffic control systems.
- (7) Methods of controlling road traffic.
- (8) Intersection control.
- (9) Manual signals.
- (10) Traffic control posts.
- (11) Traffic escorts.
- (12) Traffic patrols.
- (13) Defile regulation.
- (14) Traffic control in amphibious operations.
- (15) Civilian traffic.
- (16) Enforcement.
- (17) Definition of common traffic terms.
- (18) Signs and symbols.

b. Those matters that add to the knowledge of traffic military police (see par. 6 following), such as—

- (1) Supervision of traffic-control personnel.
- (2) Emergency adjustments of traffic-control plan.
- (3) Traffic control reconnaissance.

4. STANDARDS TO BE OBTAINED. Military police should be able to—

- a. Execute prescribed manual signals.
- b. Understand the various traffic terms.
- c. Recognize and identify signs and symbols used to record route, bridge, and traffic control information.
- d. Use and be familiar with individual items of traffic control equipment and devices.
- e. Describe generally—
 - (1) Military traffic control.
 - (2) Characteristics of military traffic.
 - (3) Duties of traffic military police.

- (4) Authority of traffic military police.
- (5) The three methods or techniques of controlling road traffic.
- (6) General principles of traffic control.
- (7) Road traffic control systems.
- (8) Defile regulation.
- (9) Traffic control in amphibious operations.

5. MINIMUM TRAINING SCHEDULE. This schedule is concerned only with training as outlined in paragraph 3a above. The training in the various subjects should be accomplished by combining conference, demonstration, and practical work.

<i>Subject</i>	<i>Reference paragraph</i>	<i>Hours</i>
Introduction; responsibility for execution of control plan	27-30	1
Definitions and characteristics of military traffic and military traffic control.....	3-4; glossary	2
Problems of traffic conflicts and general principles of traffic control.....	5-6; 22; 32	2
Authority of military police.....	10	1
Assignment and duties of military police.	9; 29; 32-36	2
Rules of the road	App. I	2
Signs and symbols	14	1
Traffic control devices	App. II	2
Enforcement	90-97	2
Intersection control (general).....	37-48	1
Location of military policeman in an intersection	43	1
Manual signals for traffic control.....	44-48	3
Flow regulation	37-38	1
Right-of-way	39-40	1
Defile regulations	63-68	3
Traffic patrols and escorts	49-62	2
Traffic accidents	102-106	2
Civilian traffic	74-78	2

Subject	Reference paragraph	Hours
Amphibious operations	79-85	1
Review	All previous	4
Examination		2
Critique		2
 Total hours		<hr/> 40

6. ADDITIONAL TRAINING SCHEDULES.

a. After training has been conducted as prescribed in paragraph 5 above and the soldier has become adept in the essentials necessary to perform the duties of traffic military police in combat operations, additional training is scheduled as time permits.

b. Training in intersection control of traffic includes lectures, practice in training areas, and experience with actual traffic conditions on military reservations and in cities and rural areas. Training should be conducted under daylight, blackout, and normal night conditions in all types of weather.

c. A traffic-control training area, as shown in figures 62 and 63, is desirable for initial training in intersection control. The design of the training area may be changed to meet local conditions or requirements. The area can be constructed quickly at reasonable cost on any flat terrain. All types of vehicles may be used, but the area is best fitted for $\frac{1}{4}$ -ton and $\frac{3}{4}$ -ton trucks. Any number of vehicles may be used at one time, or in the very early stages of the training, vehicles may be simulated by men walking. Normal over-all size of the area is 136 x 466 feet; however, the size may be increased or reduced as local circumstances require. The area should be small enough to be observed and controlled from a single point. The area has 20 intersections,

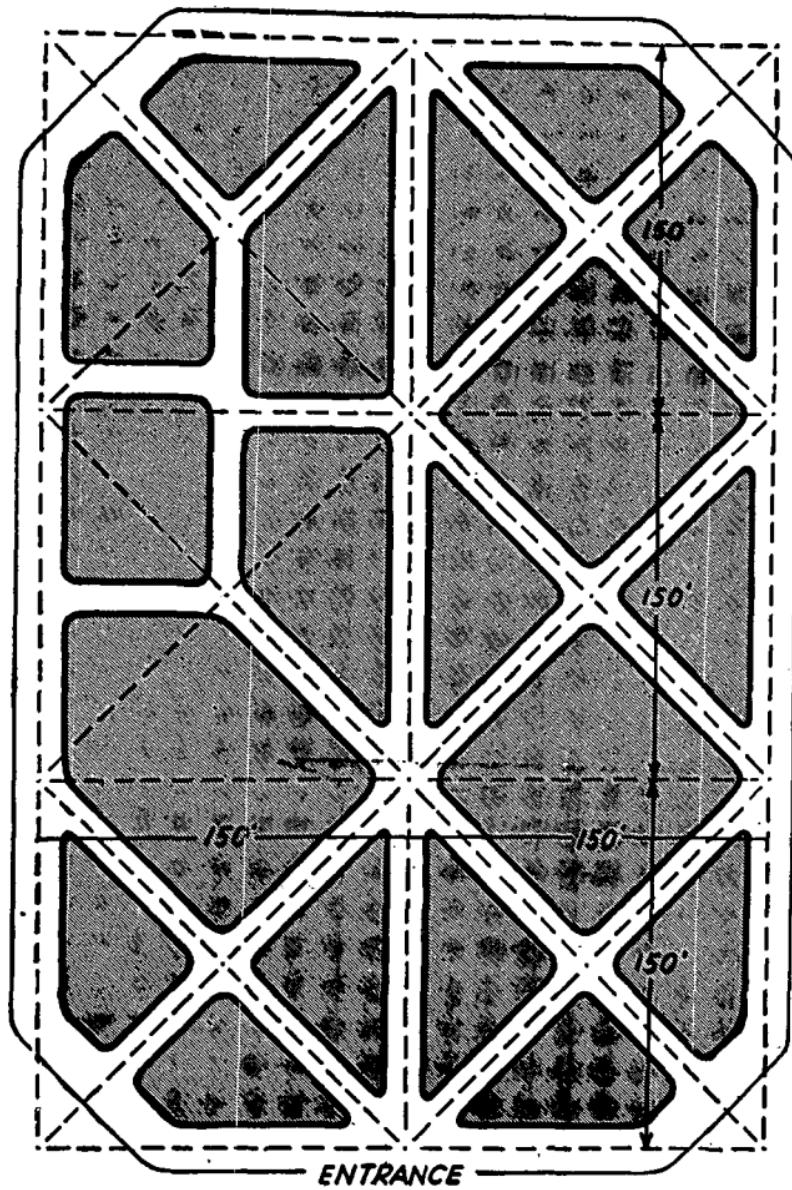


Figure 62. Traffic control training area.

including ten different types, and may be enlarged to include additional intersections and roadways. Streets

may be restricted to one-way traffic when desired. Curb lines may be marked off with stakes or stones. Normal road width is 16 feet.

d. All traffic control techniques may be demonstrated on the training area. The coach and pupil method can be used advantageously with assignments rotated so that all men participate in all phases of the work. Men may be stationed at each intersection, and vehicles driven over the road net individually or in columns. The men not actually participating may observe from the side lines, preferably with a critique being provided by an assistant instructor. For the sake of control and adequate supervision, an assistant instructor must be provided for each intersection where men are stationed.

e. Actual practice is provided in intersection, defile, escort, and patrol techniques, obtaining traffic survey information, giving directions and information, enforcement techniques, and the use of traffic control equipment. Traffic jams, accident scenes, and emergency situations requiring rerouting may be staged in the area. Black-out traffic control and the use of black-out devices may be included; for this reason, the training area should be away from lighter areas. Training for noncommissioned officers in the assignment of personnel, supervision, and local routing and scheduling procedures can be conducted on the area.

f. In addition to the aforementioned uses, such an area is also very suitable for the training of drivers and motorcycle riders. It affords over-all observation of the training in process and therefore makes control much easier. It also provides a restricted area where inexperienced drivers are not subjected to the complications that arise on the streets and highways.



Figure 63. Traffic control training area.

GLOSSARY

Administrative order. An order covering traffic, supply, evacuation, and other administrative details of operations; usually issued by divisions and higher units.

Annex. Addition to field order or other document, such as maps, overlays, sketches, forms, charts, tables, and graphs, to make it clearer or give further details.

Area control. Management by a single authority of all traffic on the road net of an area. This method is used in large-scale operations.

Barrier line. Traffic control boundary beyond which vehicles may not pass until other traffic with priority has gone through; frequently coincident with the straggler line.

Beachhead. A designated area on a hostile shore which, when established by an advance force, makes possible the landing of troops and supplies.

Bottleneck. Section of traveled roadway having too great a traffic density or too small a traffic capacity.

Boundary. A line designated in orders as the limit of the area or zone of a tactical or territorial unit.

Capacity (road). Maximum number of vehicles that can actually move over a road at a given rate in a given time.

Circulation map. Official map showing traffic routes and the measures for traffic regulation. It indicates the roads certain classes of traffic may use, the location of traffic control stations, and the directions in which traffic may move.

Column. Formation in which elements of troops, tanks, vehicles, ships, or aircraft are placed one behind the other. A column of men usually made up of a number of files and called a column of twos, threes, or fours.

Convoy. 1. Formation of ships or a train of vehicles sometimes accompanied by a protecting escort. 2. Accompany in order to protect.

Defile. Any natural feature such as a narrow valley, wood-path, or ford, or any structure such as a bridge that restricts the wide front of advance of a force, or its movement to the sides.

Dismount line. A line designated at division or higher headquarters beyond which no vehicular traffic is permitted.

Double banking. Two columns of troops or vehicles side by side, moving in the same direction or standing still.

Escort (traffic). Troops detailed to secure right-of-way over traffic of lesser importance.

Evacuation. Withdrawal of personnel, animals, or matériel from any place or position.

Flow (traffic). The number of vehicles that pass a given point within a given period of time (example, 500 vehicles per lane per hour).

Flow cycle. Complete sequence of different flow phases through an intersection.

Flow phase. Nonconflicting movement of traffic through an area in which the use of the space comprising the area is allocated alternately to movements from different directions.

Flow regulation. Allocation of an area to streams of traffic from different directions.

Grid coordinates. Method of locating a point in a

north-south direction or an east-west direction in reference to the grid lines on a military map.

Gas alert line. Limit beyond which gas masks must be kept ready to put on. The gas alert line is designated on operations maps as G.

Guide. Person who leads a unit or vehicle over a pre-determined route or to a selected area.

Highway capability. The number of short tons which can be moved over a highway within a given time with reasonable road maintenance and proper consideration of the type of roadway, mountains, hills, curves, weather, other traffic, vehicles employed, etc.

Liaison. Any contact or means of communication maintained between parts of an armed force to secure their effective working together. Liaison is often maintained between units of different branches of the service by sending personnel of one unit to visit or work with another and to keep up an exchange of information between units.

Light line. Line or boundary beyond which lights are prohibited as a security measure against enemy action or observation.

Line of communication. Network of railways, waterways, roads, and air routes by which an armed force in the field is supplied and reinforced from its base of operations.

March graph. Diagram showing the distance traveled, or to be traveled, by a marching unit in a given time, in visualizing scheduled movements and in recording and visualizing progress made; vertical scale representing distance, horizontal scale representing time, used in preparing and checking march tables.

March order. Field order issued by a commander to give instructions for a march, such as route, time of

starting, initial point, order of march, security measures, etc.

March table. Table giving the units that are to make up the various march columns, their routes, locations on each day, and other details; usually published as an annex to a field order.

March unit. A unit or group of units which moves or halts at the order of a single commander; a squad, section, company, troop, or similar organization normally forms the march unit; a serial is made up of one or more march units.

Martial law. Military authority substituted in the home country or any district thereof, either by proclamation or as a military necessity, when the civil government is temporarily unable to exercise control.

Military government. Government by armed forces over occupied foreign territory or over home territory that has been regained from rebels who are treated as belligerents. The exercise of military government is a command responsibility, and full legislative, executive, and judicial authority is vested in the commanding general of the theater of operations.

Movement control. Routing and scheduling of personnel and supply movements in order to realize the priorities of movements established by the theater commander, and to utilize transportation facilities and equipment most effectively.

Operations map. Map used in planning and checking the execution of a military mission; operation map. Conventional signs and markers on the map show the location and strength of the forces involved as well as the terrain features of the area covered by the operations.

Organizational control. Traffic control for a unit on the march, carried out by specialists of the same unit.

Park. Area used for servicing, caring for, and parking vehicles and weapons.

Patrols (traffic). Personnel mounted in a truck or on a motorcycle, having the duty of moving back and forth along a route to supervise and regulate traffic.

Priority (traffic). Determination of precedence in time of movements over lines of communication.

Railhead (truckhead; navigation head). Point at which supplies are unloaded from the particular type of transportation being employed, and from which they are distributed or forwarded by other means of transportation.

Right-of-way. The right of immediate use of the roadway—not to be confused with priority. Military police controlling traffic at an intersection give right-of-way to certain vehicles or columns based on schedules and priorities.

Road, lateral. Road generally parallel to the front; belt road.

Road, main supply. Supply road needed to supply an element or unit that is so located as to need a separate road; principal supply road.

Road, reserved. Road reserved for certain units or vehicles or for one class of traffic only.

Road traffic block. Any obstacle which delays or prevents traffic movement.

Routing. Planning of movements over designated roads.

Scheduling (traffic). A schedule system; system of traffic regulation and/or control in which truck columns and troops are dispatched over fixed routes at given rates of speed, according to a time schedule.

Selective assignment of personnel. Assignment of men at points or in areas when and where they are most needed; based on accident records, violation reports, and traffic studies.

Serial. Elements within a column, or separate columns of a march, organized as a unit for the purpose of regulation and control, which may be given an alphabetical, numerical, or other designation for convenience in planning and scheduling.

Shore party commander. Commander of a special task organization formed for the purpose of facilitating the landing and movement off the beach of troops, equipment, and supplies and for evacuation from the beach.

Situation map. Map showing the tactical or administrative situation at a particular time, used for staff study or as an addition to staff reports.

Special staff. Staff group, separate from the general staff of a unit, including those officers of the various arms and services assigned to a headquarters for technical, supply, and administrative purposes.

Speedometer multiplier. Any number by which the speedometer reading in miles per hour is multiplied to determine the proper distance between vehicles.

Station list. Directory that gives the location of the various headquarters and elements of a command.

Straggler. Soldier who falls out of ranks or wanders away from his unit without permission, especially during a march or maneuver.

Straggler collecting point. Station at which stragglers are assembled before they are returned to their proper organizations.

Straggler line. Line or route patrolled by military police for the purpose of collecting stragglers mov-

ing to the rear, usually designated in administrative orders and following well-defined terrain features such as roads, railroads, or streams. Designated on operations maps as P.

Straggler post. Post, established on a straggler line, from which military police patrols operate and to which they bring stragglers when they have picked them up.

Traffic accident. Mishap involving vehicles, resulting in injury to a person or animal or damage to property.

Traffic circulation plan. Plan for the regulation of road traffic movement.

Traffic conflict. Attempt by two or more vehicles to use the same space on a traveled roadway at the same time.

Traffic control (Military). External control of vehicular, animal, and foot traffic movement over roadways or in areas where vehicles travel, to facilitate the safe and continuous flow of traffic in conformity with the tactical situation and military needs.

Traffic control plan. Operational plan for the control of traffic circulation.

Traffic control post. Post established at a key point, usually near an important intersection, under the supervision of a military police officer or non-commissioned officer for the purpose of supervising the activities of a designated number of traffic posts and patrols.

Traffic density. Number of vehicles per unit length of roadway (e. g., 75 vehicles per mile).

Traffic jam. Any obstruction of a section of roadway by vehicles or traffic which prevents passage of other vehicles or traffic in a specified direction.

Traffic line. The three kinds of traffic lines are:

Daylight traffic line. Specified in defensive situations, beyond which wheeled traffic is not permitted during daylight; designated on operations maps as DY.

Night traffic line. Specified in defensive situations, a line beyond which wheeled traffic is not permitted during hours of darkness. Designated on operations maps as NT.

No vehicle-light line. Line in a combat zone beyond which vehicles may not show a light when traveling at night. Designated on operations maps as LT.

Traffic post. A post at a critical point to exercise traffic control and record and relay information.

Traffic survey. A study of the basic characteristics of traffic behavior and the use of traffic control equipment, to obtain facts for the purpose of improving traffic control.

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